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UNDERSTANDING THE DRIVERS OF EMPLOYEES' VOLUNTARY PRO-ENVIRONMENTAL BEHAVIOR AT WORK: AN ANALYSIS OF ORGANIZATIONAL AND INDIVIDUAL FACTORS IN THE BANKING SECTOR

NAILYA SAIFULINA

**ESCOLA DE DOUTORAMENTO INTERNACIONAL
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Understanding the drivers of employees' voluntary pro-environmental behavior at work: an analysis of organizational and individual factors in the banking sector

Dna. Nailya Saifulina

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**Understanding the drivers of employees' voluntary
pro-environmental behavior at work: an analysis of organizational
and individual factors in the banking sector**

D. Adolfo Carballo Penela (director)

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Asdo. Adolfo Carballo Penela

Asdo. Emilio Ruzo Sanmartín





To dearly loved ones

To Abashka



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RESUMO

Tendo en conta a importancia de mellorar o rendemento ambiental da organización, o estudo actual analiza os factores que inflúen no comportamento proambiental voluntario dos empregados no lugar de traballo no sector bancario de Casaquistán e Ecuador.

O comportamento verde dos empregados é un dos comportamentos estudados no marco da xestión sostible dos recursos humanos. A xestión sostible dos recursos humanos pode definirse como actividades de xestión de recursos humanos deseñadas para satisfacer as necesidades actuais da empresa e da comunidade sen comprometer a posibilidade de satisfacer as necesidades futuras. Dado que as cuestións relacionados coa sustentabilidade e as políticas verdes están a converterse no factor chave para a supervivencia da especie humana no planeta e na competitividade das empresas hoxe en día, a aplicación do concepto de sostibilidade aos recursos humanos é un punto crítico no proceso de *enverdecemento* organizativo.

Os xestores de recursos humanos están nunha posición vantaxosa para promover o desenvolvemento sostible das organizacións. As súas decisións afectan ás actividades dos empregados e por iso poden cambiar significativamente o ambiente de traballo dos empregados a través de patróns de comportamento. Por iso, poden impulsar as actividades ambientais positivas dos empregados a través da xestión de recursos humanos.

Esta investigación ten como obxectivo comprender os antecedentes do comportamento voluntario proambiental dos empregados no lugar de traballo. Tamén axuda a responder a algunhas preguntas teóricas formuladas en estudos previos.

Os antecedentes propostos están agrupados en factores inducidos polo contexto organizativo e factores individuais, dando lugar a dous submodelos (submodelo un e submodelo dous) dentro do modelo conceptual proposto. A análise factorial confirmatoria (CFA) empregase para probar a fiabilidade e validez dos constructos e a bondade de axuste do modelo de medición. O modelo de ecuacións estruturais (SEM) empregase para analizar as relacións estruturais existentes no modelo proposto. Os datos recolléronse a través dun cuestionario distribuído entre os empregados do sector bancario de Casaquistán e Ecuador.

Os resultados con respecto ao primeiro submodelo amosan as seguintes relacións estatisticamente significativas:

- A satisfacción no traballo, o apoio organizativo percibido, a percepción do apoio organizativo á familia e a confianza no supervisor inflúen positivamente no compromiso afectivo dos empregados.

- O compromiso afectivo dos empregados ten un impacto positivo no comportamento voluntario proambiental dos empregados no traballo.
- O compromiso afectivo dos empregados media positivamente a relación entre a satisfacción no traballo, o apoio organizativo percibido, a percepción do apoio organizativo á familia e a confianza no supervisor e o comportamento voluntario proambiental dos empregados no traballo.
- A percepción do apoio da organización ao medio ambiente está relacionado positivamente co comportamento voluntario proambiental dos empregados no traballo.
- A percepción do apoio da organización ao medio ambiente modera a relación entre o compromiso afectivo dos empregados e o comportamento voluntario proambiental dos empregados no traballo.
- O comportamento voluntario proambiental dos compañeiros no traballo está relacionado positivamente co comportamento voluntario proambiental dos empregados no traballo.

Os resultados con respecto ao segundo submodelo amosan as seguintes relacións:

- A conciencia persoal medioambiental, a preocupación polo medio ambiente, a conciencia da necesidade e as normas descritivas afectan positivamente os valores e actitudes con respecto ao medio ambiente.
- Os valores e actitudes con respecto ao medio ambiente están positivamente relacionados coa paixón polo medio ambiente harmoniosa.
- Os valores e actitudes con respecto ao medio ambiente median positivamente a relación entre a conciencia persoal medioambiental, a preocupación polo medio ambiente e as normas descritivas e a paixón polo medio ambiente harmoniosa.
- A paixón polo medio ambiente harmoniosa inflúe positivamente no comportamento voluntario proambiental na vida privada e no comportamento proambiental voluntario dos empregados no traballo.
- A paixón polo medio ambiente harmoniosa media positivamente a relación entre os valores e actitudes con respecto ao medio ambiente e o comportamento proambiental voluntario na vida privada e os valores e actitudes con respecto ao medio ambiente e o comportamento voluntario proambiental dos empregados no traballo.
- O comportamento voluntario proambiental na vida privada ten un efecto positivo no comportamento voluntario proambiental dos empregados no traballo.
- O comportamento voluntario proambiental na vida privada media positivamente a relación entre a paixón polo medio ambiente harmoniosa e o comportamento voluntario proambiental dos empregados no traballo.

Palabras chave: xestión de recursos humanos sostible, xestión de recursos humanos verdes, comportamento voluntario proambiental no traballo dos empregados.

RESUMEN

Considerando la importancia de mejora en el rendimiento ambiental de la organización, este estudio examina los factores que influyen en el comportamiento proambiental voluntario de los empleados en el lugar de trabajo en el sector bancario de Kazajistán y Ecuador.

El comportamiento verde de los empleados es uno de los comportamientos estudiados en el marco de la gestión de recursos humanos sostenibles. La gestión de recursos humanos sostenibles se puede definir como, actividades de gestión de recursos humanos destinados a satisfacer las necesidades actuales de la empresa y la comunidad sin poner en peligro la posibilidad de satisfacer las necesidades futuras. Dado que los temas relacionados con la sostenibilidad y las políticas verdes se están convirtiendo en el factor clave para la supervivencia de la especie humana en el planeta y la competitividad de las empresas en la actualidad, la aplicación del concepto de sostenibilidad a los recursos humanos es un punto crítico en el proceso de *enverdecimiento* organizativo.

Los gestores de recursos humanos están en una posición ventajosa para promover el desarrollo sostenible de las organizaciones. Sus decisiones afectan a las actividades de los empleados y por eso podrían cambiar significativamente el entorno de trabajo de los empleados a través de patrones de comportamiento. Por lo tanto, pueden ser capaces de impulsar las actividades ambientales positivas de los empleados a través de la gestión de recursos humanos.

Esta investigación tiene como objetivo comprender los posibles antecedentes del comportamiento proambiental voluntario de los empleados en el lugar de trabajo. También contribuye a responder algunas cuestiones teóricas planteadas en estudios previos.

Los antecedentes propuestos se agrupan en factores inducidos por el contexto organizativo y factores individuales, dando lugar a dos submodelos (submodelo uno y submodelo dos) dentro del modelo conceptual propuesto. El análisis factorial confirmatorio (CFA) se utilizó para probar la fiabilidad y validez de los constructos y la bondad de ajuste del modelo de medición. El modelo de ecuaciones estructurales (SEM) se utilizó para analizar las relaciones estructurales existentes en el modelo propuesto. Los datos se recopilaron a través de un cuestionario distribuido entre los empleados del sector bancario de Kazajistán y Ecuador.

Los resultados con respecto al primer submodelo muestran las siguientes relaciones estadísticamente significativas:

- La satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia y la confianza en el supervisor influyen positivamente en el compromiso afectivo de los empleados.
- El compromiso afectivo de los empleados tiene un impacto positivo en el comportamiento proambiental voluntario de los empleados en el trabajo.
- El compromiso afectivo de los empleados media positivamente la relación entre la satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia y la confianza en el supervisor y el comportamiento proambiental voluntario de los empleados en el trabajo.
- La percepción de apoyo de la organización al medio ambiente se relaciona positivamente con el comportamiento proambiental voluntario de los empleados en el trabajo.
- La percepción de apoyo de la organización al medio ambiente modera la relación entre el compromiso afectivo de los empleados y el comportamiento proambiental voluntario de los empleados en el trabajo.
- El comportamiento proambiental voluntario de los compañeros en el trabajo se relaciona positivamente con el comportamiento proambiental voluntario de los empleados en el trabajo.

Los resultados con respecto al segundo submodelo muestran las siguientes relaciones:

- La conciencia personal medioambiental, la preocupación por el medio ambiente y las normas descriptivas afectan positivamente los valores y actitudes con respecto al medio ambiente.
- Los valores y actitudes con respecto al medio ambiente están relacionados positivamente con la pasión por el medio ambiente armoniosa.
- Los valores y actitudes con respecto al medio ambiente median positivamente la relación entre la conciencia personal medioambiental, la preocupación por el medio ambiente y las normas descriptivas y la pasión por el medio ambiente armoniosa.
- La pasión por el medio ambiente armoniosa influye positivamente en el comportamiento proambiental voluntario de vida privada y el comportamiento proambiental voluntario de los empleados en el trabajo.
- La pasión por el medio ambiente armoniosa media positivamente la relación entre los valores y actitudes con respecto al medio ambiente y el comportamiento proambiental voluntario en la vida privada, y los valores y actitudes con respecto al medio ambiente y el comportamiento proambiental voluntario de los empleados en el trabajo.
- El comportamiento proambiental voluntario en la vida privada tiene un efecto positivo sobre el comportamiento proambiental voluntario de los empleados en el trabajo.
- El comportamiento proambiental voluntario en la vida privada media positivamente la relación entre la pasión por el medio ambiente armoniosa y el comportamiento proambiental voluntario de los empleados en el trabajo.

Palabras clave: gestión sostenible de recursos humanos, gestión de recursos humanos verdes, comportamiento proambiental voluntario en el trabajo de los empleados.





ABSTRACT

Considering the importance of improving organizational environmental performance, the current study examines the drivers of employees' voluntary pro-environmental behavior at work (voluntary PEB at work) in the banking sector of Kazakhstan and Ecuador.

Green behavior by employees is among the behavior studied within the framework of sustainable human resource management (HRM). The sustainable HRM can be defined as human resource management activities aimed at meeting the company's and the community's optimal present needs without jeopardizing the possibility to meet future needs. Since sustainability issues and green policies are becoming the key factor for the human species survival on the planet and the competitiveness of companies nowadays, the application of the sustainability concept to the HR is a critical point in organizational greening process.

HR managers are in a preferable position to promote the sustainable development of organizations. Their decisions affect the employees' activities and HR managers could significantly change the employees' working environment through behavioral patterns. Hence, they may be able to boost the positive environmental activities of the employees through HR management.

This research is aimed at understanding possible antecedents of employees' voluntary PEB at work. It also contributes to answer some theoretical questions raised by prior literature.

The proposed antecedents are grouped into organizational context-induced and individual factors composing two research sub-models (sub-model one and sub-model two). Confirmatory Factor Analysis (CFA) was used to test the reliability and validity of the constructs and the goodness of fit of the measurement model. Structural Equation Modeling (SEM) was used to analyze existing structural relationships in the proposed model. The data was collected through questionnaire distributed among employees of banking sector of Kazakhstan and Ecuador.

Results with regard to the first sub-model show the following statistically significant relationships:

- Job satisfaction, perceived organizational support, family supportive organizational perceptions and trust in supervisors positively influence employee affective commitment.
- Employee affective commitment positively impacts employees' voluntary pro-environmental behavior at work.
- Employee affective commitment positively mediates the relationship between job satisfaction, perceived organizational support, family supportive

organizational perceptions and trust in supervisors and employees' voluntary pro-environmental behavior at work.

- Perceived organizational environmental support positively influences employees' voluntary pro-environmental behavior at work.
- Perceived organizational environmental support moderates the relationship between employee affective commitment and employees' voluntary pro-environmental behavior at work.
- Colleagues' voluntary pro-environmental behavior is positively related to employees' voluntary pro-environmental behavior at work.

Results with regard to the second sub-model show the following statistically significant relationships:

- Personal environmental awareness, environmental concern and descriptive norms positively affect environmental values and attitudes.
- Environmental values and attitudes are positively related to harmonious environmental passion.
- Environmental values and attitudes positively mediate the relationship between personal environmental awareness, environmental concern and descriptive norms and harmonious environmental passion.
- Harmonious environmental passion positively influences private life voluntary pro-environmental behavior and employees' voluntary pro-environmental behavior at work.
- Harmonious environmental passion positively mediates the relationship between environmental values and attitudes and private life voluntary pro-environmental behavior, and environmental values and attitudes and employees' voluntary pro-environmental behavior at work.
- Private life voluntary pro-environmental behavior has a positive effect on employees' voluntary pro-environmental behavior at work.
- Private life voluntary pro-environmental behavior positively mediates the relationship between harmonious environmental passion and employees' pro-environmental behavior at work.

Keywords: sustainable human resource management, green human resource management, employees' voluntary pro-environmental behavior at work

RESUMEN EXTENDIDO

Introducción

Los problemas ambientales son uno de los obstáculos globales más importantes para la supervivencia de la humanidad que el mundo enfrenta en la actualidad. Si prestamos atención a las diferentes esferas de la actividad humana, veremos que términos como “ambiental”, “proambiental” o “ecológico” se han convertido en palabras de moda (Atkinson, Dietz, Neumayer, & Agarwala, 2014). Además, la brecha entre las clases sociales está creciendo (Rogers, Jalal, & Boyd, 2012), lo que acentúa las desigualdades, en las que los más ricos acumulan casi toda la riqueza, mientras que los más pobres luchan por la supervivencia y la satisfacción de las necesidades básicas como alimentos y vivienda.

Las empresas tienen un papel clave en la situación descrita. Dado que la influencia de las empresas sobre los problemas ambientales y la sociedad es inmensa, es necesario poder realizar actividades empresariales respetando el medio ambiente y las necesidades de la sociedad. En este punto, el concepto de desarrollo sostenible resalta la necesidad de que la satisfacción de las necesidades actuales de los humanos no perjudique la capacidad de la naturaleza para satisfacer las necesidades futuras (WCED, 1987).

Las empresas pueden contribuir a la sostenibilidad global gestionando adecuadamente la interacción de cuestiones económicas, sociales y ambientales.

La dimensión económica del desarrollo sostenible a nivel de empresa básicamente se enfoca en la obtención de beneficios (Elkington, 1999, p. 74). Sin embargo, algunos autores (Elkington, 1999) subrayan la idea que los gastos realizados incluyan también objetivos sociales y relacionados con el medio ambiente.

La dimensión social se centra en la influencia que la compañía tiene en las personas fuera y dentro de la organización como relaciones comunitarias, patrocinio y actividades de caridad, empleo de minorías desfavorecidas, conciliación de la vida laboral y familiar, salud y seguridad en el trabajo y formación de los empleados (Elkington, 1999; Labuschagne, Brent, & Claasen, 2005).

Las empresas medioambientalmente responsables contribuyen a la sostenibilidad ambiental general y minimizan la huella ambiental de la empresa. Además, también pueden usar sus recursos naturales de manera más eficiente, lo que puede aumentar la rentabilidad (rendimiento financiero) (Trumpp & Guenther, 2017) a largo plazo (Berns et al., 2009).

La aplicación de prácticas ambientales a la esfera empresarial puede i). hacer que una empresa sea eficiente en términos energéticos, evitando daños ambientales; ii). crear confianza en las partes interesadas medioambientales, diferenciar productos y

posicionar a la empresa en el mercado; iii). disminuir la presión pública y las preocupaciones sobre la huella ecológica de la empresa; iv). aumentar la demanda del consumidor en productos/servicios de la empresa (Walsh & Dodds, 2017); y v). crear valor compartido (Porter & Kramer, 2011), lo que significa emplear valores empresariales junto con valores sociales y ambientales en la estrategia empresarial.

Se cree que la gestión de recursos humanos (RRHH) está estrechamente vinculada a los resultados ambientales, sociales y económicos en el ámbito empresarial (Ehnert & Harry, 2012).

No debemos olvidar que la gestión de RRHH forma parte de la gestión general de la empresa (Schaltegger, Burritt, & Petersen, 2003) y, como tal, influye en el logro de metas y objetivos organizativos. Algunos autores han señalado que el empleado debe estar en el centro del estudio del vínculo entre el desempeño de la empresa y la gestión de recursos humanos, en el sentido de que es el empleado quien acepta o rechaza las prácticas de recursos humanos y los comportamientos de los empleados pueden afectar el rendimiento (Purcell & Kinnie, 2007).

Basado en los conceptos de desarrollo sostenible y gestión de recursos humanos, el concepto de gestión de recursos humanos sostenible (STHRM) ha surgido recientemente. La definición más amplia de gestión de RRHH sostenible muestra claramente que la función de STHRM desempeña un papel importante para las organizaciones que desean ser sostenibles. Ehnert y otros señalan que la STHRM puede definirse como “la adopción de estrategias y prácticas de gestión de RRHH que permitan el logro de objetivos financieros, sociales y ecológicos, con un impacto dentro y fuera de la organización y en un horizonte de tiempo a largo plazo, mientras se controlan los efectos secundarios no deseados y la retroalimentación negativa” (Ehnert, Parsa, Roper, Wagner, & Muller-Camen, 2016, p. 3).

Para algunos investigadores, la gestión de recursos humanos verdes puede verse como la dimensión ambiental de la STHRM. La gestión de recursos humanos verdes se presenta como un nuevo enfoque basado en i). el desarrollo de condiciones de trabajo amigables con el medio ambiente, ii). la motivación de las actitudes de los empleados hacia el medio ambiente en el trabajo (Bombiak & Marciniuk-Kluska, 2018; Mohrman & Worley, 2010; Whitmarsh & O'Neill, 2010), iii). la búsqueda del uso sostenible de los recursos de la organización, iv). el establecimiento de apoyo ambiental, incluida la cultura organizacional ambiental (Bombiak & Marciniuk-Kluska, 2018; Mampira, 2013; Zoogah, 2011), y v). la mejora del desempeño ambiental organizacional general (Ren, Tang, & Jackson, 2018).

Las políticas y prácticas de gestión de recursos humanos verdes incluyen la creación de empleos respetuosos con el medio ambiente en el marco de la gestión ambiental (Bombiak & Marciniuk-Kluska, 2018), el reclutamiento ecológico, la recopilación de datos relevantes sobre residuos (May & Flannery, 1995), el aumento de la alfabetización ecológica y experiencia ambiental entre los empleados de la empresa (Roy & Thérin, 2008), la implementación de introducción y orientación ecológica para todos los empleados (Siyambalapitiya, Zhang, & Liu, 2018), beneficios para los

empleados por su participación ambiental, actividades ecológicas y desempeño ambiental (Siyambalapitiya et al., 2018). Su objetivo es lograr organizaciones ecológicas mediante el desarrollo de una cultura verde. En esta tarea, el comportamiento de los empleados juega un papel clave.

La gestión de recursos humanos verdes puede tener diferentes efectos en los comportamientos proambientales de los empleados. Como políticas oficiales de la organización, que involucran comportamientos *in-role*, las políticas y prácticas de la gestión de recursos humanos verdes pueden conducir a comportamientos proambientales obligatorios de los empleados.

Los comportamientos proambientales obligatorios o prescritos son las acciones requeridas incluidas en la descripción del trabajo y el sistema de gestión (forzados por la presión de los accionistas o un desastre ambiental reciente), recompensados o castigados por el sistema de recompensa formal y beneficiosos para el ejecutante de dicho comportamiento (Ciocirlan, 2017; Lülfs & Hahn, 2013; Yuriev, Boiral, Francoeur, & Paillé, 2018). Pueden conducir a consecuencias negativas (por ejemplo, negación, falta de voluntad para realizar el comportamiento proambiental cuando no se observa y controla, falta de voluntad para involucrar tales comportamientos en la identidad propia, hecho solo porque uno tiene que hacerlas) que no es deseable (Vallerand, 2015).

El comportamiento voluntario se basa en la noción de ser creativo y libre, siendo una de sus características la voluntad de realizar el comportamiento incluso cuando los supervisores no lo controlan (Vallerand, 2015). El comportamiento proambiental voluntario en el trabajo incluye varias características, como estar relacionado con el trabajo de un empleado, pero sin estar obligado a realizarlo (es decir, incluye una situación de elección y depende de la voluntad de realizar el comportamiento), se realiza sin influencia externa o mínima en un nivel individual (por deseo intrínseco de realizar acciones que mejoren la situación ambiental) y está orientado hacia el futuro. Tal comportamiento generalmente no es reconocido por el sistema oficial de recompensa organizacional porque no está incluido en la descripción formal del trabajo (Lülfs & Hahn, 2013; Ramus & Killmer, 2007; Yuriev et al., 2018).

Las iniciativas voluntarias de los empleados y su disposición a participar en comportamientos proambientales de forma voluntaria se consideran una parte importante para lograr una organización ecológica (Lülfs & Hahn, 2013).

Las motivaciones de los empleados para realizar comportamientos proambientales voluntarios son de naturaleza diferente, incluyendo algunos factores individuales e influencias del contexto organizativo.

El contexto organizativo puede desempeñar un papel clave en la mejora del comportamiento proambiental de los empleados. Los factores inducidos por el contexto organizativo también pueden influir en la formación de políticas y prácticas de gestión de recursos humanos verdes formales. Por ejemplo, si el empleado se comporta de manera proambiental en su hogar, también puede preferir hacerlo en el trabajo. Si no hay instalaciones disponibles para llevar a cabo tal comportamiento (por

ejemplo, ningún punto de reciclaje de papel), el empleado puede exigirlos a la gerencia, de manera que obligue a la empresa a establecer las instalaciones necesarias que incorporen ese comportamiento para que se convierta en una política de la empresa más adelante.

Las influencias individuales, a su vez, pueden influir en la formación de políticas y prácticas de gestión de recursos humanos verdes formales de una manera diferente. Por ejemplo, el empleado apasionado por el medio ambiente puede involucrarse en trasladar su enfoque proambiental a las tareas de trabajo de sus compañeros del puesto. Eso puede conducir a la demanda de los compañeros de más información sobre el tema. La necesidad de esa información puede obligar a la empresa a establecer el *training* oficial sobre los temas con respecto al medio ambiente relacionados con el trabajo.

A pesar de la enorme importancia del comportamiento proambiental voluntario en el trabajo, la literatura existente aún es escasa (Ones & Dilchert, 2012a; Paillé & Boiral, 2013; Robertson & Barling, 2013), existiendo *gaps* que no están cubiertos por investigaciones previas. Algunas de las lagunas existentes están relacionadas con el análisis de los antecedentes que influyen en el comportamiento proambiental voluntario en el trabajo, incluidos los valores ambientales (Melo, Ge, Craig, Brewer, & Thronicker, 2018), factores de personalidad (Pavalache-Ilie & Cazan, 2018) y comportamientos proambientales fuera del trabajo (Paillé, Raineri, & Boiral, 2017), entre otros. Otros *gaps* tienen que ver con la complejidad de los modelos analizados (Tosti-Kharas, Lamm, & Thomas, 2017), que no suelen incluir varios tipos de antecedentes, como los que se originan en el contexto organizativo y los factores individuales, además de no consideración de múltiples mecanismos de mediación (Luu, 2019a) útiles en la predicción de comportamientos proambientales voluntarios practicados en el trabajo.

Nuestro trabajo tiene como objetivo entender los posibles antecedentes del comportamiento proambiental voluntario de los empleados en el trabajo. También formulamos respuestas a algunas preguntas teóricas planteadas por la literatura previa, tratando de contribuir al desarrollo de la definición del constructo comportamiento proambiental voluntario de los empleados, además de marcar la importancia de las organizaciones de servicios y, en particular, del sector bancario en el logro de la sostenibilidad global.

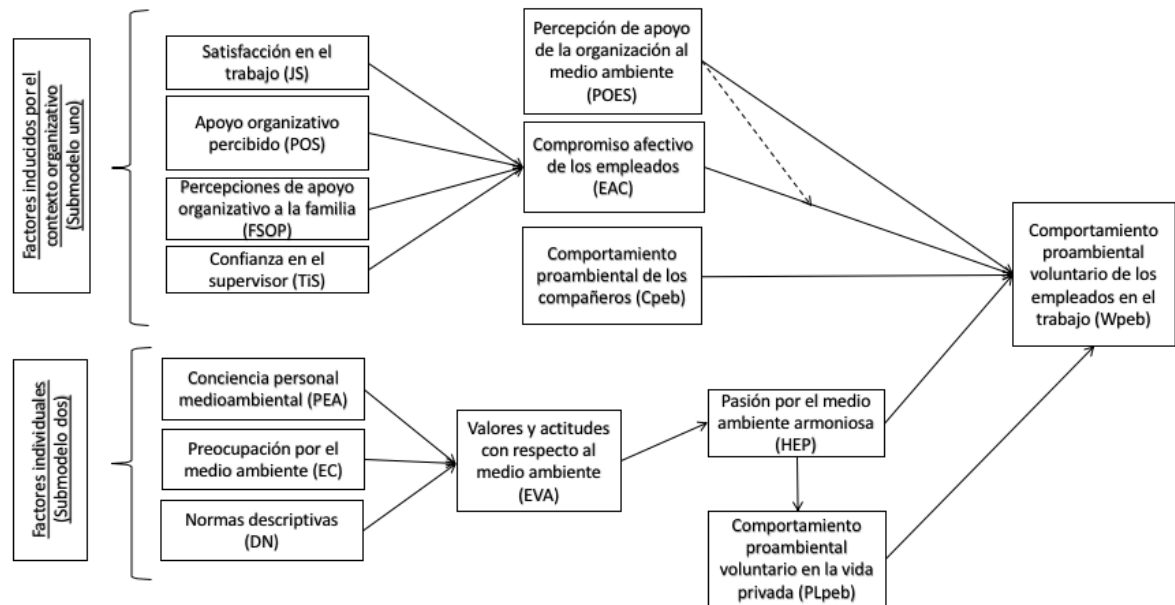
Para lograr los objetivos propuestos, proponemos los antecedentes seleccionados divididos en grupos, tal y como se muestra en el modelo conceptual propuesto.

El primer submodelo incluye la satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia, la confianza en el supervisor, el compromiso afectivo de los empleados, la percepción de apoyo de la organización al medio ambiente, el comportamiento proambiental de los compañeros y el comportamiento proambiental voluntario de los empleados en el trabajo.

El segundo submodelo incluye la conciencia personal medioambiental, la preocupación ambiental, las normas descriptivas, los valores y actitudes con respecto

al medio ambiente, la pasión por el medio ambiente armoniosa, el comportamiento proambiental voluntario en la vida privada y el comportamiento proambiental voluntario de los empleados en el trabajo.

Modelo conceptual propuesto



Fuente: elaboración propia.

Con respecto al primer submodelo, las principales teorías empleadas en la elaboración de las hipótesis son la Teoría del Intercambio Social (*Social Exchange Theory*) y la Teoría del Apoyo Organizacional (*Organizational Support Theory*). Otras teorías secundarias para esta investigación son la Teoría de la Identidad Social (*Social Identity Theory*) y la Teoría Cognitiva Social (*Social Cognitive Theory*). Con respecto al segundo submodelo, las teorías más importantes utilizadas para explicar las relaciones estudiadas son la Teoría del Comportamiento Planificado (*Theory of Planned Behavior*), el Modelo de Activación de Normas (*Norm Activation Model*) y la Teoría de Ampliación y Construcción (*Broaden-and-Build Theory*).

El análisis realizado implica la recopilación de datos primarios a través de un cuestionario distribuido entre empleados del sector bancario de Kazajstán y Ecuador, obteniendo, respectivamente, 107 y 224 respuestas válidas.

Los resultados con respecto al primer submodelo muestran las siguientes relaciones estadísticamente significativas:

- La satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia y la confianza en el supervisor influyen positivamente en el compromiso afectivo de los empleados.

- El compromiso afectivo de los empleados tiene un impacto positivo en el comportamiento proambiental voluntario de los empleados en el trabajo.
- El compromiso afectivo de los empleados media positivamente en la relación entre la satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia y la confianza en el supervisor y el comportamiento proambiental voluntario de los empleados en el trabajo.
- La percepción de apoyo de la organización al medio ambiente se relaciona positivamente con el comportamiento proambiental voluntario de los empleados en el trabajo.
- La percepción de apoyo de la organización al medio ambiente modera la relación entre el compromiso afectivo de los empleados y el comportamiento proambiental voluntario de los empleados en el trabajo.
- El comportamiento proambiental voluntario de los compañeros se relaciona positivamente con el comportamiento proambiental voluntario de los empleados en el trabajo.

Los resultados con respecto al segundo submodelo muestran las siguientes relaciones estadísticamente significativas:

- La conciencia personal medioambiental, la preocupación por el medio ambiente y las normas descriptivas afectan positivamente a los valores y actitudes con respecto al medio ambiente.
- Los valores y actitudes con respecto al medio ambiente están relacionados positivamente con la pasión por el medio ambiente armoniosa.
- Los valores y actitudes con respecto al medio ambiente median positivamente en la relación entre la conciencia personal medioambiental, la preocupación por el medio ambiente y las normas descriptivas y la pasión por el medio ambiente armoniosa.
- La pasión por el medio ambiente armoniosa influye positivamente en el comportamiento proambiental voluntario en la vida privada y el comportamiento proambiental voluntario de los empleados en el trabajo.
- La pasión por el medio ambiente armoniosa media positivamente la relación entre los valores y actitudes con respecto al medio ambiente y el comportamiento proambiental voluntario en la vida privada, y los valores y actitudes con respecto al medio ambiente y el comportamiento proambiental voluntario de los empleados en el trabajo.
- El comportamiento proambiental voluntario en la vida privada tiene un efecto positivo sobre el comportamiento proambiental voluntario de los empleados en el trabajo.
- El comportamiento proambiental voluntario en la vida privada media positivamente la relación entre la pasión por el medio ambiente armoniosa y el comportamiento proambiental voluntario de los empleados en el trabajo.

Contribuciones de la investigación

Los resultados de este estudio contribuyen a la literatura previa sobre sostenibilidad empresarial y, en particular a la literatura sobre comportamiento proambiental voluntario de los empleados en el trabajo, desde diferentes perspectivas.

Desde el punto de vista teórico, esta investigación subraya la importancia de preservar el medio ambiente y contribuir a minimizar la huella ecológica de la actividad humana, en la que el mundo corporativo y los negocios juegan un papel importante.

Esta investigación también contribuye a vincular los conceptos de gestión de recursos humanos y sostenibilidad. Al ser un concepto bastante nuevo, la gestión sostenible de los recursos humanos está ganando importancia en la literatura actual sobre gestión de los recursos humanos (App, Merk, & Büttgen, 2012; De Prins, Van Beirendonck, De Vos, & Segers, 2014; Ehnert & Harry, 2012).

En esta investigación, mostramos nuestra visión de algunas diferencias entre el enfoque estratégico de gestión de recursos humanos y el enfoque sostenible, destacando la importancia de cómo se gestionan las tensiones entre las diferentes dimensiones del desarrollo sostenible en cada enfoque y considerando el tipo de enfoque de sostenibilidad inherente a ambos conceptos.

Se subraya también la importancia de la gestión de recursos humanos verdes en la *ecologización* de las organizaciones y, particularmente, en la promoción de comportamiento proambiental voluntario en el trabajo. Algunos estudios han señalado el papel de las prácticas y políticas de recursos humanos verdes para promover comportamientos ecológicos obligatorios.

Adicionalmente, esta investigación destaca la relación bidireccional entre las políticas y prácticas de gestión de recursos humanos verdes y los antecedentes del comportamiento proambiental inducidos por el contexto organizativo e individuales, resaltando que los factores inducidos por el contexto organizativo e individuales también pueden influir en la formación de políticas y prácticas de gestión de recursos humanos verdes formales a través de iniciativas de los empleados. Por lo tanto, la gestión de recursos humanos verdes ofrece oportunidades interesantes para comprender las posibles relaciones entre el comportamiento proambiental obligatorio y voluntario.

El papel del empleado en la *ecologización* organizativa es también destacado. En particular, nuestra investigación señala la importancia de los comportamientos "voluntarios" para lograr este objetivo porque, al ser una unidad clave de la empresa (Chaudhary, 2018), los empleados participan activamente en actividades organizativas y cambian significativamente su entorno de trabajo a través de su comportamiento (Parker, Bindl, & Strauss, 2010) y la aplicación de iniciativas con respecto al medio ambiente a su rutina diaria de trabajo.

Indudablemente, el enfoque teórico para identificar posibles determinantes del comportamiento proambiental voluntario podría hacerse desde perspectivas diferentes a las que hemos seguido en esta investigación. La literatura sobre psicología,

comportamiento organizacional y proactividad proporciona marcos teóricos útiles para abordar los antecedentes estudiados. Al centrar nuestra investigación en la literatura sobre desarrollo sostenible, gestión de recursos humanos sostenibles y gestión de recursos humanos verdes, este estudio destaca la importancia de la gestión de personas para lograr organizaciones más ecológicas y, en particular, para promover el comportamiento proambiental voluntario de los empleados en el trabajo.

Finalmente, este estudio reconoce la importancia del sector de servicios (en particular, el sector bancario) cuando se trata del tema del desarrollo sostenible en general.

Considerando los resultados del análisis empírico, queremos resaltar las siguientes contribuciones.

El modelo estudiado en la investigación actual es complejo e incluye antecedentes de diferente naturaleza, centrándose en los antecedentes poco estudiados o no estudiados por la literatura previa. Creemos que ésta es la primera vez que se estudian los antecedentes propuestos en el mismo modelo conceptual.

El modelo testado incluye variables mediadoras y moderadoras, que proporcionan resultados interesantes para el estudio. Las relaciones de mediación se incluyen en los submodelos uno y dos. La relación de moderación se incluye en el modelo que estudia los factores inducidos por el contexto organizativo (submodelo uno).

Los resultados obtenidos destacan los efectos de diferentes tipos de apoyo organizacional, incluido el apoyo organizacional percibido (POS), el apoyo ambiental organizacional percibido (POES) y las percepciones de apoyo organizativo a la familia (FSOP), a la hora de promover el comportamiento voluntario proambiental en el trabajo. El papel de POES debe destacarse especialmente, ya que, además del impacto positivo directo, POES también fortalece la relación entre el compromiso afectivo de los empleados y el comportamiento proambiental voluntario en el trabajo.

El papel mediador del compromiso afectivo de los empleados para la promoción del comportamiento proambiental voluntario en el trabajo también es significativo. La literatura anterior ha considerado algunos tipos de comportamiento *extra-role*. Esta investigación muestra que esos comportamientos *extra-role* pueden incluir los comportamientos proambientales voluntarios en el trabajo.

Los resultados obtenidos también subrayan la importancia de la pasión por el medio ambiente armoniosa en la promoción del comportamiento proambiental voluntario en el trabajo y en la vida privada. La pasión por el medio ambiente armoniosa actúa como mediador entre los valores y actitudes con respecto al medio ambiente y i). el comportamiento proambiental voluntario en la vida privada y ii). el comportamiento proambiental en el trabajo. Además, es antecedente directo del comportamiento proambiental voluntario tanto en la vida privada como en el trabajo, e influye en el comportamiento proambiental voluntario de los empleados en el trabajo a través del comportamiento proambiental voluntario en la vida privada.

Adicionalmente, queremos destacar dos hallazgos interesantes relacionados con 1). el rol diferente de los antecedentes inducidos por el contexto organizativo e individuales

en la promoción del comportamiento proambiental voluntario en el trabajo, y 2). el papel del país de los empleados en su el comportamiento proambiental voluntario en el trabajo.

Los resultados muestran que los antecedentes inducidos por el contexto organizativo e individuales tienen un efecto significativo en el comportamiento proambiental voluntario en el trabajo. Sin embargo, cada tipo de antecedente afecta a diferentes tipos de comportamientos.

Los factores inducidos por el contexto organizativo motivan la participación de los empleados en el comportamiento proambiental voluntario en el trabajo relacionado con la organización. Nuestros hallazgos muestran que los antecedentes del submodelo uno predicen el comportamiento en línea con la definición OCB-O o "comportamientos que benefician a la organización en general" (Williams & Anderson, 1991, p. 601).

Por otro lado, los factores individuales motivan la participación del empleado en comportamientos voluntarios relacionados con ayudar a otros. En este caso, los resultados muestran que los antecedentes individuales predicen comportamientos en línea con la definición de OCB-I o "comportamientos que benefician inmediatamente a individuos específicos e indirectamente a través de este medio contribuyen a la organización" (Williams & Anderson, 1991, p. 602).

Aunque este resultado puede parecer previsible, la investigación previa no ha prestado atención a esta clasificación del comportamiento voluntario proambiental en el trabajo. Nuestros resultados muestran que, además de distinguir entre diferentes categorías y subcategorías de comportamientos proambientales voluntarios teniendo en cuenta el tipo específico de comportamiento, es interesante clasificarlos teniendo en cuenta el objetivo del comportamiento, es decir, si el comportamiento proambiental beneficia a la organización en general o al individuo, ya que los antecedentes pueden variar según el objetivo.

Por lo tanto, los resultados muestran otra posible clasificación relevante de comportamiento proambiental voluntario en el trabajo: comportamiento proambiental voluntario en el trabajo hacia la organización (WPEB-O u OCBE-O, usando terminología OCB) y comportamiento proambiental voluntario en el trabajo hacia el individuo (WPEB-I u OCBE-I).

Este hallazgo también respalda la clasificación seguida en este estudio, que agrupa los antecedentes del comportamiento proambiental voluntario en el trabajo en determinantes inducidos por el contexto organizativo e individuales. También está en línea con la idea de que diferentes tipos de comportamientos proambientales son inducidos por diferentes factores motivacionales (Robertson & Barling, 2017). Por lo tanto, cuando se mide el comportamiento proambiental voluntario en el trabajo, es interesante considerar escalas que al menos midan estas dos categorías de comportamientos.

El hecho de que el modelo propuesto se haya probado utilizando una muestra de empleados bancarios en dos países en desarrollo (Ecuador y Kazajstán) llena un vacío

con respecto a investigaciones previas, ya que la mayoría de la literatura previa en el campo se centró principalmente en países desarrollados. Además, investigaciones anteriores en este tema o similares no habían prestado mucha atención a estos dos países.

Los resultados obtenidos indican que los antecedentes sugeridos en los estudios realizados en Europa Occidental y América del Norte son relevantes en los países estudiados. Sin embargo, se muestra que el país donde trabaja y vive el empleado puede ser relevante al explicar con qué tipo de comportamiento proambiental están comprometidos los empleados del banco.

Los resultados del análisis de control de país muestran que el país de los encuestados desempeña un papel en la explicación del comportamiento proambiental voluntario en el trabajo en el submodelo uno y dos. Sin embargo, los resultados son diferentes en cada submodelo. Los resultados obtenidos muestran que los encuestados de Kazajstán fueron más proambientales con respecto al comportamiento cuyo objetivo es la organización (comportamiento proambiental voluntario en el trabajo para la organización). Por su parte, los encuestados ecuatorianos demostraron una mayor participación en el comportamiento proambiental relacionado con ayudar a sus compañeros (comportamiento proambiental voluntario en el trabajo para el individuo).

Las diferencias culturales entre ambos países podrían explicar estos resultados. Aplicando el análisis de la clasificación cultural de Hofstede, se puede decir que con respecto a los valores culturales, a pesar de que ambos países están orientados a la jerarquía, la jerarquía es más importante en Kazajstán que en Ecuador, lo que significa que en el caso de Kazajstán, el conservatismo social y la importancia de la jerarquía en la sociedad pueden alentar a las personas a participar en actividades relacionadas con las tareas para obtener la posibilidad de recompensas futuras.

Además, aunque ambos países son colectivistas, los ecuatorianos son claramente más colectivistas que los kazajos. Por lo tanto, los ecuatorianos pueden aceptar el entorno laboral como una comunidad donde los individuos forman una especie de familia. Ayudar a los miembros de una comunidad en este caso puede ser una práctica común.

Limitaciones y líneas de investigación futura

Los resultados del estudio actual deben interpretarse en el contexto de sus limitaciones.

Primero, el número limitado de participantes en la muestra de Kazajstán (107 participantes) impide probar el modelo en Ecuador y Kazajstán por separado. Los investigadores recomiendan tener al menos 200 casos en total para poder medir modelos complejos (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014; Kline, 2011). Aunque la muestra ecuatoriana es lo suficientemente grande, el tamaño de la muestra de empleados de Kazajstán no es suficiente. Sin embargo, el país de los encuestados se incluyó como variable de control para considerar el papel del país en este estudio. Además, la investigación futura debería considerar un análisis separado para cada país.

Segundo, la internacionalidad y la universalidad de los actores del sistema bancario deben considerarse al comprender los resultados del estudio. Como muchos bancos son compañías multinacionales, los empleados de banca de los países en desarrollo podrían tener un comportamiento diferente con respecto al medio ambiente que los empleados de otros sectores. Sin embargo, la falta de estudios similares para el sector bancario nos animó a examinar el comportamiento de los empleados de banca.

Además, la investigación se realizó en las capitales de los países estudiados donde muchas personas no están en contacto directo con la naturaleza. Investigaciones futuras pueden replicar el modelo propuesto en el estudio actual en otros entornos, como por ejemplo ciudades más pequeñas.

Tercero, la falta de escalas consolidadas para comportamiento proambiental voluntario en el trabajo puede ser un problema. El comportamiento proambiental voluntario en el trabajo es un constructo relativamente nuevo y no existe un consenso claro sobre cómo debe medirse.

La escala utilizada también incluye un ítem que no fue validado previamente. Este ítem se incluyó porque consideramos que está relacionado con un comportamiento relevante para los empleados del banco, ya que refleja los deberes directos del empleado del sector bancario que trabaja con los clientes. Las líneas de investigación futuras deberían validar este ítem, encontrando también una forma factible de completar la escala incluyendo todos los tipos de comportamiento proambiental voluntario de los empleados propuestos por Ones & Dilchert (2012) y Ones et al. (2018) y tipos ofrecidos por Boiral & Paillé (2012).

Trabajar con empleados de bancos de países que no hablan inglés también agrega complejidad a la elaboración de escalas. El cuestionario desarrollado incluyó ítems tomados de literatura previa escrita en inglés. La traducción posterior al español y al ruso fue realizada por la autora de la tesis, adaptando los ítems a estos idiomas. Aunque la traducción fue revisada por dos hablantes nativos antes de entregar los cuestionarios, la traducción doble ciega podría ayudar a mejorar la calidad de la traducción.

Para la variable de normas descriptivas, solo se utilizó la suma del número de normas presentes en el individuo. La investigación futura debería usar escalas que no solo midan la amplitud de la variable, sino también su tipología.

Algunos autores (Gifford & Sussman, 2012) argumentan que aunque los valores y las actitudes se pueden confundir entre sí, puede haber algunas diferencias sutiles entre ellos. Futuras investigaciones pueden dividir la variable de los valores y actitudes con respecto al medio ambiente en dos variables diferentes.

Además, debido a la naturaleza transversal de los datos recopilados para probar el modelo propuesto, el estudio actual no analizó la existencia de las relaciones de causalidad entre las variables estudiadas. Investigaciones futuras pueden centrarse en el desarrollo de estudios longitudinales para evaluar las relaciones de causalidad en los dos submodelos estudiados.



LIST OF ABBREVIATIONS

3P	People, planet and profits
AVE	Average variance extracted
BABT	Broaden-and-build theory
CA	Cronbach Alpha
CAF	Latin American Development Bank (Banco de Desarrollo de América Latina)
CAPD	Comisión Académica del Programa de Doctorado (Academic Commission of PhD program)
CEO	Chief executive officer
CFI	Comparative Fit Index
CIEDUS	Centro Internacional de Estudos de Doutorado e Avanzados da USC (International center of PhD studies of USC)
CIS	Commonwealth of Independent States
CMIN	Chi-square equivalent in Confirmatory Factor Analysis
CFA	Confirmatory factor analysis
Cpeb	Colleagues' voluntary pro-environmental behavior
CR	Composite Reliability
CSR	Corporate social responsibility
DCT	Dynamic capabilities theory
DDT	Dichlorodiphenyltrichloroethane (type of the insecticide, highly toxic for the environment)
df	Degrees of freedom
DN	Descriptive norms
EAC	Employee affective commitment
EC	Environmental concern
EDCT	Ecocentric dynamic capabilities theory
EF	Environmental footprint
EMS	Environmental management system

EVA	Environmental values and attitudes
FSOP	Family supportive organizational perceptions
GDP	Gross domestic product
GHG	Greenhouse gases emissions
GHRM	Green human resource management
GNI	Gross national income
GRI	Global reporting initiative
GRATE	Grantor Retained Income Trust
H (e.g., H1, H2, ..., H18)	Hypothesis (e.g., Hypothesis 1, Hypothesis 2, ..., Hypothesis 18)
HDI	Human development index
HEP	Harmonious environmental passion
HR	Human resources
HRM	Human resource management
I. G. Farben	Interessen-Gemeinschaft Farbenindustrie (company name)
IBM SPSS	Statistical Package for the Social Sciences produced by International Business Machines Corporation
IFI	Bollen's Incremental Fit Index
ISO	International Organization for Standardization
ISP	Intesa Sanpaolo
IUCN	International Union for Conservation of Nature
ICT	Information and communication technology
JS	Job satisfaction
Kommunalkredit AG	Kommunalkredit Austria
NAM	Norm activation model
NBK	National Bank of Kazakhstan
NCBS	National Cooperative Banking Summit
NGO	Non-governmental organization
NO _x	Nitrogen oxides emissions
OCB	Organizational citizenship behavior
OCBE	Organizational citizenship behavior for the environment
OCBE-I	Organizational citizenship behavior for the environment towards individual

OCBE-O	Organizational citizenship behavior for the environment towards organization
ODS	Ozone depleting substances emissions
OECD	Organization for Economic Co-operation and Development
OST	Organizational support theory
PEA	Personal environmental awareness
PEB	Pro-environmental behavior
PLpeb	Private life voluntary pro-environmental behavior
PNUMA	The Program of United Nations for Environment (Programa de las Naciones Unidas para el Medio Ambiente)
POES	Perceived organizational environmental support
POS	Perceived organizational support
RBT	Resource-based theory
RBV	Resource-based view
RMSEA	Root mean square error approximation
RRHH	Recursos humanos
SCA	Sustained competitive advantage
SD	Sustainable development
SEM	Structural equation modeling
SET	Social exchange theory
SHRM	Strategic human resource management
SOx	Sulphur oxides emissions
STHRM	Sustainable human resource management
SWOT	Strengths, weaknesses, opportunities and threats
TiS	Trust in supervisors
TLI	Tucker-Lewis Index
TPB	Theory of planned behavior
TRA	Theory of reasoned action
UAE	United Arab Emirates
UN	United Nations
UNEP	United Nations Environmental Program
UNFCCC	United Nations Framework Convention on Climate Change

USA	United States of America
USSR	Union of Soviet Socialist Republics
WBCSD	World Business Council for Sustainable Development
WCED	World Commission on Environment and Development
WHO	World Health Organization
Wpeb	Employees' voluntary pro-environmental behavior at work
WPEB-I	Voluntary pro-environmental behavior at work towards individual
WPEB-O	Voluntary pro-environmental behavior at work towards organization
WWII	World War II
WWF	World Wildlife Fund



TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	9
RESUMO	11
RESUMEN.....	13
ABSTRACT	17
RESUMEN EXTENDIDO.....	19
LIST OF ABBREVIATIONS.....	31
INTRODUCTION	41
1. SUSTAINABLE DEVELOPMENT AND SUSTAINABILITY	51
1.1. The concept of sustainable development.....	52
1.1.1. The need of changing the current model of development.....	52
1.1.2. Definition of sustainable development.....	55
1.2. Dimensions of sustainable development.....	58
1.2.1. Economic and social dimensions.....	59
1.2.2. Environmental dimension	60
1.3. Understanding how sustainable development works.....	63
1.3.1. Weak and strong sustainability.....	64
1.4. Sustainable development at a business level	66
1.4.1. Sustainable development of companies	66
1.4.2. Competitiveness of applying sustainable development issues	69
1.4.3. Sustainable development indicators.....	71
1.4.4. Management theories regarding environmental sustainability at a business level	73
1.5. Sustainable development and banking sector	77
1.6. Banking sector of Kazakhstan and Ecuador	80
1.6.1. General overview of the countries.....	80
1.6.2. Banking sector	86

2. HUMAN RESOURCE MANAGEMENT	89
2.1. The concept of human resources and human resource management.....	89
2.1.1. Evolvement of the human resource management (HRM) concept.....	92
2.1.2. HR practices, HR policies and systems of HR practices	94
2.1.3. Strategic human resource management (SHRM)	96
2.1.3.1. The concept of SHRM	96
2.1.3.2. Lining up human resources and firm strategy	98
2.2. The Importance of HR for organizations	101
2.2.1. HR and resource-based view of a firm.....	101
2.2.2. HRM and business performance.....	103
2.2.2.1. The relation of HRM and organizational performance: universalistic, contingency, configurational and contextual approaches.....	107
3. SUSTAINABLE HUMAN RESOURCE MANAGEMENT, GREEN HUMAN RESOURCE MANAGEMENT AND PRO-ENVIRONMENTAL BEHAVIOR AT WORK.....	115
3.1. The concept of sustainable human resource management (STHRM).....	115
3.1.1. Sustainable HRM: macro level.....	118
3.1.2. Sustainable HRM: meso level, micro level.....	119
3.2. Sustainable HRM and strategic HRM	122
3.3. Green HRM and employees' green behavior.....	128
3.3.1. The concept of green HRM (GHRM).....	128
3.4. Pro-environmental behavior (PEB)	136
3.4.1. Private life pro-environmental behavior	137
3.4.2. Pro-environmental behavior at work	139
3.4.2.1. Voluntary pro-environmental behavior at work and organizational citizenship behavior for the environment (OCBE).....	142
3.4.2.2. Voluntary PEB at work and employees' green behavior	146
3.4.2.3. Measurement of voluntary pro-environmental behavior at work	148
4. RESEARCH FRAMEWORK AND HYPOTHESES DEVELOPMENT	153
4.1. Determinants of voluntary pro-environmental behavior at work.....	153
4.2. Theories to understand the relationships between the determinants of employees' voluntary pro-environmental behavior at work.....	161
4.2.1. Theories for understanding relationships among organizational context- induced antecedents of employees' voluntary pro-environmental behavior at work.....	161

Social Exchange Theory.....	161
Organizational Support Theory.....	164
Social Identity Theory.....	168
Social Cognitive Theory.....	169
4.2.2. Theories for understanding relationships between individual antecedents and voluntary pro-environmental behavior at work.....	171
Theory of Planned Behavior.....	171
Norms Activation Model.....	173
Broaden-and-Build Theory.....	177
4.3. Hypotheses development.....	180
4.3.1. Hypotheses development: organizational context-induced antecedents of employees' voluntary pro-environmental behavior at work.....	180
4.3.1.1. Employee affective commitment and employees' voluntary pro-environmental behavior at work.....	180
Job satisfaction and employee affective commitment.....	183
Perceived organizational support, family supportive organizational perceptions and employee affective commitment.....	185
Trust in supervisors and employee affective commitment.....	189
Employee affective commitment and voluntary pro-environmental behavior at work.....	191
The mediating effect of employee affective commitment on the relationship between job satisfaction, perceived organizational support, family-supportive organizational perceptions, trust in supervisors and employees' voluntary pro-environmental behavior at work.....	192
Perceived environmental organizational support and voluntary PEB at work. The moderating role of perceived environmental organizational support on the relationship between employee affective commitment and employees' voluntary pro-environmental behavior at work.....	194
4.3.1.2. Colleagues pro-environmental behavior and employees' voluntary pro-environmental behavior at work.....	196
4.3.2. Hypothesis development: individual factors affecting employees' voluntary pro-environmental behavior at work.....	198
4.3.2.1. Environmental values and attitudes, harmonious environmental passion and employees' voluntary PEB at work.....	198
Personal environmental awareness, environmental concern, and environmental values and attitudes.....	201
Descriptive norms and environmental values and attitudes.....	203

Environmental values and attitudes and harmonious environmental passion.....	205
The mediating effect of environmental values and attitudes on the relationship between personal environmental awareness, environmental concern, descriptive norms and harmonious environmental passion.....	207
Harmonious environmental passion and voluntary pro-environmental behavior.....	209
The mediating effect of harmonious environmental passion on the relationship between environmental values and attitudes and private life and employees' voluntary pro-environmental behavior...	211
Private life voluntary pro-environmental behavior and employees' voluntary pro-environmental behavior at work.....	213
The mediating effect of private life voluntary pro-environmental behavior on the relationship between harmonious environmental passion and employees' pro-environmental behavior at work.....	214
5. RESEARCH METHODOLOGY AND RESULTS.....	217
5.1. Methodology	217
5.1.1. Sample and data collection procedure.....	217
5.1.2. Measurement of constructs: questionnaire development and scales.....	218
5.2. Analysis and results.....	223
5.2.1. Descriptive analysis.....	223
5.2.1.1. Sample description: respondent profile.....	223
5.2.1.2. Theoretical constructs: univariate analysis	224
5.2.2. Hypotheses testing: CFA and SEM analysis	231
5.2.2.1. Conceptual model: summary.....	232
5.2.2.2. Sub-model one: CFA and SEM.....	232
5.2.2.2.1. Sub-model one: scales, reliability and validity	233
5.2.2.2.2. Sub-model one: testing of hypotheses and results	235
5.2.2.3. Sub-model two: CFA and SEM.....	239
5.2.2.3.1. Sub-model two: scales, reliability and validity	239
5.2.2.3.2. Sub-model two: testing of hypotheses and results	242
6. CONCLUSIONES.....	245
6.1. Introducción	245
6.2. Discusión.....	247
6.2.1. Antecedentes inducidos por el contexto organizativo	247

6.2.2. Antecedentes individuales.....	253
6.3. Contribuciones de este estudio.....	257
6.4. Implicaciones del estudio.....	263
6.5. Limitaciones y futuras líneas de investigación	266
REFERENCES	273
LIST OF FIGURES.....	339
LIST OF TABLES.....	341
7. ANNEX.....	343
7.1. Table of sustainable development indicators.....	343
7.2. Corporate social responsibility and sustainable development	346
7.2.1. The concept of corporate social responsibility.....	347
7.2.1.2. External vs internal CSR.....	350
7.2.2. CSR and HR activities	350
7.3. OCBE dimensions and proposed questionnaire items.....	353
7.4. Classification of the studied determinants of PEB at work	356
7.5. Questionnaire sample used for data collection.....	365



INTRODUCTION

Research support

Environmental issues are one of the most important global obstacles for the Humanity's survival that the world is facing now. When talking about the different spheres of human activity, the terms such as "environmental", "pro-environmental", "ecological" become buzz words (Atkinson et al., 2014). In addition, the gap between social classes is growing (Rogers et al., 2012) leading to the inequalities where the richest are accumulating almost all the wealth while the poorest are struggling for survival and satisfaction of the basic needs such as food and shelter.

Business plays a key role in affecting the described situation. Since company influence on environmental issues and society is immense, there is a need to be able to perform business activities respecting environment and society.

The concept of sustainable development offers a solution by proposing to change the priorities, giving preference to the needs of the poor, and to limit ourselves so that the ability of the nature to meet our current needs does not harm the ability of nature to meet future needs (WCED, 1987).

There are many definitions of sustainable development. The most used one that gathers the main principle of the concept is the one made by European Commission proposed in the Brundtland report (WCED, 1987). This definition underlines the importance of the development limitation in a way that the needs of the present are met without compromising the needs of the future.

Businesses are important when contributing to global sustainability, which also could be beneficial for business success. Being sustainable affects company activities in a several significant ways related to economic, social and environmental issues.

The economic dimension focuses on overall economic growth (WCED, 1987), underlining the idea of maximizing income and economic value created by the organization while keeping stock of capital at the same level or growing (Rogers et al., 2012). In this case, income or profit is the benefit that is a common good or economic impact that the organization has on the economic environment it works in.

The social dimension centers on the influence a company has on people outside and inside the organization through activities such as community relations, sponsorship and charity activities, employment of disadvantaged minorities, health and safety at work and employee education (Elkington, 1999; Labuschagne et al., 2005). That impact is spread over three different levels, being external population (i.e. organizational impact on the community), macrosocial performance (i.e. organizational impact on regional/national level), and internal human resources (i.e.

organizational impact on employees working in the organization) (Carballo-Penela, 2019; Labuschagne et al., 2005).

Companies being environmentally responsible contribute to the overall environmental sustainability and minimize the company's environmental footprint. In addition, they may also use their natural resources more efficiently, possibly increasing profitability (financial performance) (Trumpp & Guenther, 2017) in the long-run (Berns et al., 2009).

Applying environmental practices to the business sphere may i). make a company energy efficient, preventing environmental damage, i.e. decreasing a company's environmental footprint; ii). create trust in environmental stakeholders, differentiating products and positioning the company on the market; iii). diminish public pressure and concerns about the environmental footprint of the company; iv). increase consumer demand on company products/services (Walsh & Dodds, 2017); and v). create shared value (Porter & Kramer, 2011), which means employing business values together with social and environmental values in company strategy.

All those points mentioned above can result in competitive advantage on the market (Trumpp & Guenther, 2017), since for sustainable businesses gaining competitive advantage can be an easier process with minimized obstacles.

Human resource management is believed to be closely linked to the environmental, social and economic bottom lines of business sustainability (Ehnert & Harry, 2012).

Since human resource management forms part of overall company management (Schaltegger et al., 2003), it possesses certain power for the achievement of company goals and objectives. Some authors have noted that the employee should be on the center stage of the study of HRM-firm performance linkage, in a sense that the employee is the one who accepts or rejects HR practices and employees' behaviors can affect performance (Purcell & Kinnie, 2007).

Based on the concepts of sustainable development and HRM, the sustainable HRM concept (STHRM) has arisen recently.

Since the term is quite new, there are many proposed definitions and points of view that see the concept from various angles. Some researchers argue that the full potential of the concept has not totally been explored yet, focusing on various issues regarding environmental and social topics such as, for example, organizational change design, environmental issues, employability and workplace justice in the business field (Ehnert, 2009d).

The broader definition of sustainable HRM clearly shows that sustainable HRM function plays an important role for organizations striving to sustainability, which could be taken from Ehnert and colleagues, who point out that "sustainable HRM can be defined as the adoption of HRM strategies and practices that enable the achievement of financial, social and ecological goals, with an impact inside and outside of the organization and over a long-term time horizon while controlling for unintended side effects and negative feedback" (Ehnert et al., 2016, p. 3). This

definition underlines two important factors of STHRM that are i). having multiple and contradictory goals for each dimension of triple bottom line, and ii). the interrelation between the HRM system and its working environments, both internal and external, to control externalities and resource regeneration.

For some researchers Green HRM (GHRM) can be seen as the environmental dimension of sustainable HRM. Green HRM is presented as a new approach based on the i). development of environmentally friendly working conditions, ii). motivation of employee attitudes towards the environment at work (Bombiak & Marciniuk-Kluska, 2018; Mohrman & Worley, 2010; Whitmarsh & O'Neill, 2010), iii). the pursuit of the sustainable use of organization's resources, iv). establishment of environmental support including environmental organizational culture (Bombiak & Marciniuk-Kluska, 2018; Mampra, 2013; Zoogah, 2011), and v). the improvement of overall organizational environmental performance (Ren, Tang, & Jackson, 2018).

All those aspects can develop the establishment of greener organizations with greener organizational processes (Bombiak & Marciniuk-Kluska, 2018; Egri & Hernal, 2002; Norton, Zacher, Parker, & Ashkanasy, 2017), resulting in organizational sustainability, better corporate image (Shen, Dumont, & Deng, 2018) and competitive advantage on the market (Bombiak & Marciniuk-Kluska, 2018; Chodyński, Jabłoński, & Jabłoński, 2008; Ziółko & Mróz, 2015), among others.

GHRM policies and practices include the creation of environmentally-friendly jobs within the framework of environmental management (Bombiak & Marciniuk-Kluska, 2018), green recruitment (green branding, pro-environmental image, green job description, incorporation of green knowledge and skills to the job description of all jobs, not only green positions) (Siyambalapitiya et al., 2018), collection of relevant waste data (May & Flannery, 1995), raising eco-literacy and environmental expertise among firm employees (Roy & Thérin, 2008), implementation of green introduction and orientation for all employees (Siyambalapitiya et al., 2018), perks for employees for environmental involvement, green activities and environmental performance (Siyambalapitiya et al., 2018). They aim to achieve green organizations by developing a green culture. In this task, employees' behaviors play a key role.

Employee involvement in environmental initiatives is considered crucial for success in organizational greening (Remmen & Lorentzen, 2000). Because being a key unit of the company (Chaudhary, 2018), the employees are actively involved in organizational activities and significantly change their working environment through their behavior (Parker et al., 2010).

Some examples of employee behavior that contribute to the company greening (Rawashdeh, 2018), would be gathering information and/or using the existing organizational processes in order to improve their environmental performance, such as the maintenance of the current company equipment, material reuse, turning off machinery, equipment and computers when not in use (Fryxell & Lo, 2003), recycling waste (Renwick, 2018), and presentation of ecological ideas for future

environmentally friendly organizational improvements (Bombiak & Marciniuk-Kluska, 2018).

GHRM may have different effects on the pro-environmental behavior of employees. As organizational formal policies, which involve in-role behaviors, Green HRM policies and practices may lead to mandatory employees' pro-environmental behaviors.

Prescribed or mandatory pro-environmental behaviors are the required actions included in job description and management system (forced by shareholder pressure or recent environmental disaster), rewarded or punished by the formal reward system and beneficial to the performer of such behavior (Ciocirlan, 2017; Lülfs & Hahn, 2013; Yuriev et al., 2018). Some examples of mandatory pro-environmental behaviors could include environmental impact assessment, control of the use of resources, including natural resources, and waste management (Lin, Nadlifatin, Amna, Persada, & Razif, 2017). The obliged behavior may lead to negative consequences (e.g., negation, unwillingness to perform PEB when not watched and controlled, unwillingness to involve such behaviors into self-identity, done only because the one has to do them) that is undesirable (Vallerand, 2015).

All in all, even if some pro-environmental behaviors are prescribed in the formal job description, the promotion of environmental behavior at work through prescribed behaviors is half-way on the road to corporate greening (Lülfs & Hahn, 2013). A significant part of the organizational greening lies with initiatives and voluntary behavior of the employees towards eco-friendliness.

Voluntary behavior is based on the notion of being creative and liberated, being one of its characteristics the willingness to perform the behavior even when not controlled by the supervisors (Vallerand, 2015). Voluntary pro-environmental behavior at work includes several characteristics such as being connected with the employee's job, but not obliged to perform (i.e. including choice situation and depends on the willingness to perform the behavior), being performed with no or minimum external influence on an individual level (by intrinsic desire to perform actions that improve the environmental situation) and being future-oriented. Such behavior is not usually recognized by the official organizational reward system because it is not included in the formal job description (Lülfs & Hahn, 2013; Ramus & Killmer, 2007; Yuriev et al., 2018).

GHRM policies and practices can also induce volunteer behaviors in some circumstances. For instance, to develop and implement green policies and practices the organization may recruit experts in greening and people concerned about the environment. Those specialists may help to establish green organizational culture and atmosphere that may encourage employees to behave in pro-environmental way voluntarily (Cohen, Taylor, & Muller-Camen, 2012). Understanding the significance of organizational greening and its contribution to the global sustainable development, may encourage employees to "do their bit" contributing to the overall greening. Also, the creation and implementation of strategies aimed at providing a conducive

environment to prevent various health problems/in order to improve health and safety of employees such as the creation of green zones (Ditz, Ranganathan, & Banks, 1995), might increase the feeling of perceived organizational support that may result in commitment and further engagement in voluntary pro-environmental behaviors in order to benefit the organization.

In addition, GHRM can indirectly promote the development of voluntary pro-environmental behaviors of employees by shaping the organizational context and influencing individual's environmental values. For instance, if there is an organizational green culture established by GHRM policies within the organization, it is more probable that there would be leaders and supervisors performing pro-environmental behaviors. GHRM practices could help to develop employees' environmental values and attitudes which could end in voluntary pro-environmental behaviors.

Although GHRM can play a key role in promoting pro-environmental behaviors of employees, few organizations have implemented Green HRM practices and policies at this moment, making it interesting to analyze other factors which lead to employees' pro-environmental behavior.

Employees' motivations for performing pro-environmental behaviors are of a different nature, including also influences from the organizational context and some individual factors, particularly relevant for employees' voluntary pro-environmental behaviors.

The organizational context can play a key role in enhancing the pro-environmental behavior of employees. Factors such as supervisory support for environmental efforts, perceived corporate social performance, organizational commitment (Daily, Bishop, & Govindarajulu, 2009), environmentally specific transformational leadership, perceived pro-environmental climate of coworkers (Robertson & Carleton, 2018), job satisfaction (Paillé & Boiral, 2013), green work climate perceptions of the organization (Norton et al., 2014) are underlined by researchers as possible determinants of employees' pro-environmental behavior at work.

Being different for every person, individual influences can have an impact on employees' behavior at work. They include, among others, personal values and norms (Zientara & Zamojska, 2018), individual passion towards the environment (Robertson & Barling, 2013), environmental concern (Daily et al., 2009), environmental awareness and connectedness to nature (Rezapouraghdam, Alipour, & Darvishmotevali, 2018), pro-environmental identity (Whitmarsh, Haggard, & Thomas, 2018), etc.

Organizational context-induced and individual factors may also influence the formation of formal GHRM policies and practices. For instance, if the employee is behaving in a pro-environmental way at home, he/she may also prefer to do so at work. If there are no available facilities to perform such behavior (e.g., no paper recycling point), employee may demand them from the management, compelling the firm to establish needed facilities incorporating such behavior as a firm policy later on. Also, environmentally conscious employees and their colleagues may encourage

organizational management to develop practices to raise awareness of the rest of company staff on environmental issues, resulting in training provided by the organization, for example.

Research in the field of employees' pro-environmental behavior is still in nascent stages, and researchers have noted the need of a better understanding of determinants of employees' pro-environmental behavior at work, especially for voluntary behaviors (Bissing-Olson, Aarti, Fielding, & Hannes, 2013; Paillé, Mejía-Morelos, Marché-Paillé, Chen, & Chen, 2016).

First, the concept of the pro-environmental behavior is not well-developed and studied (Wang, He, Xia, Meng, & Wu, 2018).

The denomination of the behavior towards the environment varies even if there are parallels in the definitions of similar concepts such as organizational citizenship behavior for the environment (OCBE) (Boiral, 2009; Boiral, Raineri, & Talbot, 2016; Boiral, Talbot, & Paillé, 2013), employee green behavior (Ones & Dilchert, 2012a; Ones et al., 2018), voluntary pro-environmental behavior (Lülfes & Hahn, 2013; Robertson & Carleton, 2018) or workplace pro-environmental behaviors (Robertson & Barling, 2013), among others.

In addition, some studies are focusing on PEB in general, not explicitly mentioning if the behavior under study is voluntary or prescribed (Fryxell & Lo, 2003; Graves, Sarkis, & Zhu, 2013; Robertson & Barling, 2013). Others just focus their research on voluntary behavior (Boiral & Paillé, 2012; Lamm, Tosti-Kharas, & Williams, 2013; Robertson & Barling, 2017) or both voluntary and prescribed ones (Bissing-Olson et al., 2013).

The scales used to measure pro-environmental behavior and, particularly, voluntary pro-environmental behavior also differ: since the motivation of employees to engage in different types and categories of behaviors vary (Francoeur, Paillé, Yuriev, & Boiral, 2019; Steg & Vlek, 2009), the scales to measure them differ too. If the difference of measurement of eco-initiatives and eco-helping, for example, has its logic, prior literature demonstrates that similar categories of behavior are also measured with different scales.

Second, research on determinants of employees' voluntary PEB at work is still scarce. Prior literature has examined some antecedents such as pro-environmental behavior at home (Rayner & Morgan, 2017; Tudor, Barr, & Gilg, 2007), job satisfaction, commitment to colleagues (Paillé et al., 2016), corporate social responsibility (Gkorezis & Petridou, 2017), work-life balance (Melo et al., 2018), and personal norms and self-identity (Ruepert et al., 2016). However, the complex and interrelated factors leading to the employee voluntary PEB at work are not well-understood (Tosti-Kharas et al., 2017):

- Some studies provide a solid theoretical framework regarding determinants of voluntary PEB at work, but they are not empirically tested (Daily et al., 2009; Lülfes & Hahn, 2013)

- Some studies do not consider the antecedents of voluntary PEB, just focusing on the antecedents that result in performing pro-environmental behavior in general (e.g., social pressure (Saphores, Ogunseitan, & Shapiro, 2012), mandatory greening (Chu, Yeh, & Yang, 2006) or prescribed recycling programs (Vining & Ebreo, 1992))
- There are not enough studies in the organizational context exploring the impact of some relevant determinants such as
 - Colleagues voluntary PEB – colleagues voluntary PEB at work can influence the willingness to perform the same type of behavior as other colleagues (Paillé et al., 2016). There is also no consensus on the effect of pro-environmental attitudes on pro-environmental behavior (Melo et al., 2018),
 - Environmental commitment or environmental passion outside the work setting (Paillé, Raineri, & Boiral, 2017). However, environmental passion can lead to performing activities to support the object of passion (i.e. Environment) experiencing positive emotions (Robertson & Barling, 2013) and becoming energized, inspired and motivated (Gousse-Lessard, Vallerand, Carbonneau, & Lafrenière, 2013),
 - Psycho-social factors (Bamberg & Möser, 2007) – the importance of factors such as attitude, moral responsibility and problem awareness may play an important role in the process of engagement in voluntary PEB in the organizational context, being omitted in favor of other factors that are derived from organization,
 - Personality factors (Pavalache-Ilie & Cazan, 2018) – the differences in personality of the individuals may influence the engagement in categories of voluntary pro-environmental behavior, for instance, employees that are willing to be engaged in conservation and transforming behavior, may not be active initiators and participants of pro-environmental programs,
- Some studies focusing on direct influences on PEBs at work do not include neither intervening mediating variables that can link the determinants with PEB nor moderating factors that may strengthen or reduce the magnitude of the effect of the determinants (Luu, 2019a). Prior research does not include multiple mediation mechanisms (Luu, 2019a) for better prediction of antecedents of voluntary PEB at work.

Third, research has focused on analyzing determinants of employees' voluntary pro-environmental behaviors in various settings such as the hotel industry (Peng & Lee, 2019; Rezapouraghdam et al., 2018), the manufacturing sector (Paillé, Chen, Boiral, & Jin, 2014), the educational sector analyzing college workers (Al-Shemmeri & Naylor, 2017), university employees (Blok, Wesselink, Studynka, & Kemp, 2015; Saifulina & Carballo-Penela, 2017) and graduate students (Boiral & Paillé, 2012). The drivers of these kinds of behavior have not been explicitly analyzed in other activities such as at work in the banking sector.

Finally, the studies on pro-environmental behavior at work are mainly focused on the developed Northern American or Western European countries. There are very few studies for developing countries regarding pro-environmental behavior. Some exceptions include China (Lu, Liu, Chen, Long, & Yue, 2017), Thailand (Afsar, Badir, & Kiani, 2016) and United Arab Emirates (Willuweit, 2009). However, in the case of some other developing countries there was no prior literature found on the topic of employees' voluntary pro-environmental behavior at work or any area of voluntary PEB.

Taking previous considerations into account, the main objective is to develop and test a framework to analyze organizational context-induced and individual antecedents affecting employees' voluntary pro-environmental behavior at work.

For this purpose, we have selected the following determinants, dividing them into organizational context-induced factors (sub-model one) and individual factors (sub-model two).

The first sub-model includes job satisfaction, perceived organizational support, family supportive organizational perceptions, trust in supervisors as antecedents of employee affective commitment, and employee affective commitment, perceived organizational environmental support, colleagues' voluntary pro-environmental behavior as antecedents of the dependent variable. In this sub-model employee affective commitment also plays a mediating role between job satisfaction, perceived organizational support, family supportive organizational perceptions, trust in supervisors and employees' voluntary pro-environmental behavior at work. In turn, perceived organizational environmental support moderates the relationship of employee affective commitment-employees' voluntary pro-environmental behavior at work.

The second sub-model includes personal environmental awareness, environmental concern and descriptive norms as antecedents of environmental values and attitudes. Environmental values and attitudes play the role of determinants of harmonious environmental passion. In this sub-model, environmental values and attitudes also positively mediate the relationship between personal environmental awareness, environmental concern and descriptive norms and harmonious environmental passion. Harmonious environmental passion plays the role of determinant of private life voluntary pro-environmental behavior and employees' voluntary pro-environmental behavior at work. In this sub-model, harmonious environmental passion also positively mediates the relationship between environmental values and attitudes and private life voluntary pro-environmental behavior, and environmental values and attitudes and employees' voluntary pro-environmental behavior at work. Private life voluntary pro-environmental behavior is also considered as an antecedent of employees' voluntary pro-environmental behavior at work, while private life voluntary pro-environmental behavior positively mediates the relationship between harmonious environmental passion and employees' voluntary pro-environmental behavior at work.

For our research we have chosen Kazakhstan and Ecuador as countries of study because:

- i. Prior literature mainly focuses on developed countries, so it is very interesting to be able to design new tools for pro-environmentalism, learn the levels of awareness of environmental problems in developing countries and contribute to the design of the policies and practices accordingly;
- ii. Our theoretical framework embraces a complex model of variables, including factors coming from both organizational context and individual characteristics which has been empirically tested. According to our knowledge, this model has never been tested before, particularly, in the countries we have selected;
- iii. According to the author's knowledge, no comprehensive work was dedicated to how bank employees of those countries behave regarding questions of pro-environmentalism and sustainable development.

On a more concrete level, this research includes several secondary objectives. On the theoretical level we would like to achieve the following objectives:

- To underline the importance of STHRM in modern business-making, noting the role of HRM function to promote global, business and people sustainability;
- To highlight the key role of Green HRM in the organizational greening;
- To note the importance of employees' voluntary PEB for achieving greener organizations;
- To mark the importance of the service organizations and, in particular, the bank in the achievement of global sustainability.

On the empirical level we would like to achieve the following secondary objectives:

- To understand the mechanisms for promotion of employees' voluntary PEB in organizations;
- To comprehend the role played by the context-induced organizational and individual factors in promoting employees' voluntary pro-environmental behavior;
- To discover the role of the factors mentioned in prior literature particularly in the banking sector;
- To determine if the antecedents indicated in previous literature for countries of Western Europe and North America play the same role in other countries, with a different level of development and culture.

For achieving the proposed objectives, we have collected data through questionnaire that was available online and in a printed version among banking sector employees.

The banking sector impacts the environment by using important amounts of paper, energy for transportation of their employees, employee commuting including business trips, heating, producing a huge amount of wastes (Bouma, Jeucken, & Klinkers, 2001), having a significant environmental footprint (Jeucken & Bouma, 2001; Jeucken, 2001). Banks in general have a lot of branches, whose small and unseen

activities affect the environment. However, all those activities together, such as travel activities, office buildings construction materials, electricity, and paper use, have a huge environmental footprint (Kirk, 1995; Wolf, 2013).

The employees were conducted one by one regardless of the bank they work in by email, phone and through personal contacts of the researcher. Confirmatory Factor Analysis (CFA) was used to test the reliability and validity of the constructs and the goodness of fit of the measurement model. Structural Equation Modeling (SEM) was used to analyze structural relationships through factor and multiple regression analysis.

Structure of the research

The current PhD thesis is structured as follows. Chapter I focuses on the explanation of the concept of sustainable development and its global importance, including its significance for business-making. The dimensions of sustainable development, indicators to measure them and its importance for the banking sector is described. Chapter II centers on the concept of human resource management, including its evolvement and application. The strategic HRM and the importance of HR for the organizations is discussed. Chapter III, in turn, explains the novelty of the term of sustainable HRM in different levels of analysis: macro, meso and micro. Some differences between strategic HRM and sustainable HRM are highlighted. Next, the term of Green HRM and green policies and practices that are within the framework of Green HRM are discussed. Finally, this chapter focuses on the concept of employees' voluntary pro-environmental behavior at work, distinguishing between private life PEB and workplace PEB. In addition, the differences and similarities between voluntary PEB at work, OCBE and employees' green behaviors are analyzed, discussing some issues related to the measurement of voluntary PEB at work and classification of different types of behavior.

Chapter IV focuses on the research model and hypothesis development including all the proposed relationships between all constructs.

Chapter V explains research methodology, data analysis and results of the current research. In this section, we present research methodology performed to test our theoretical hypotheses with data collected in an empirical study. First, data collection procedure and measurement of construct are described, ending this section with a statistical description of data collected. Second, conceptual sub-models are tested with CFA and SEM analysis, ending this section with results of the analysis for each conceptual sub-model.

Chapter VI presents detailed discussion, limitations and future research and final conclusions, including practical implications.

“The fates of industrialized and developing countries are linked more than most people realize. We are in the midst of a giant political and economic transition, and we are discovering that globalization does not just mean having Japanese cars and water from France. It also means that the fate of mankind is intimately involved in the issue of sustainability.”
(Rogers et al., 2012).

1. SUSTAINABLE DEVELOPMENT AND SUSTAINABILITY

Environmental issues have become a hot topic during the last few decades and day by day new concepts including environmental protection in business performance, such as ecological economics – have arisen (Atkinson et al., 2014). Moreover, gaps between social classes have enlarged and reached extremes from both sides: the rich are becoming richer and the poor – poorer (Rogers et al., 2012).

Emissions are contributing strongly to the accumulation of greenhouse gases and an overall planet surface temperature rise, causing ecological catastrophes (World Health Organization, 2015). Since the influence of companies on environmental issues and society is immense, there is a need to be able to perform business activities, which respect environment and society.

Sustainable development (SD) these days has become a widely recognized goal of the human race (Jeucken, 2004), ever since environmental issues and social inequality have rapidly become the most essential ones.

Although researchers have previously paid attention to different questions related to the term of sustainable development, the concept as we know it now emerged in 1980s in order to study the connection between development and environment (Banerjee, 2008). However, the basis for that was established long before. The Stockholm conference UNEP (United Nations Environmental Program) took place in 1972 to be able to come up with the new models of development, which considered environmental and social issues, underlining the need for a new concept that could embrace a new path of development – the term “eco-development” emerged. The term was not successful and due to the crisis of 1973 and the oil and gas price increase, a UN conference took place in 1983 that resulted in Our Common Future Brundtland

Report (1987), which would give life to the definition of sustainable development that we will discuss in the following chapter (Carballo-Penela, 2010).

We would like to clarify the issues and investigate the case of the sustainable development and its role and impact on business and human resource management in the following chapters.

1.1. The concept of sustainable development

In the current chapter we would like to focus the attention of the reader, first of all, on the global concept of sustainable development, considering the dimensions and types of the concept. Second of all, we would like to explain the application of the concept in the daily life of businesses. Finally, since current research is highly interested in the sustainable development of the service sector, we take banks as a unit of study, analyzing the functioning of the bank from the point of view of sustainable development and the possibility of banks to impact other sectors by guiding them to a sustainable path.

1.1.1. The need of changing the current model of development

More or less 8,000 years ago, humanity reached the mountainous (for that time) number of about 10 million people (Meadows, Randers, & Meadows, 2004). Primitive men, and to a large extent also men of the early civilizations, imagined themselves to be living on a virtually illimitable plane (Boulding, 1992). However, unavoidable population growth came – from more or less 10 million people to about 800 million by 1750 (Meadows et al., 2004), increasing to more than 7 billion people nowadays. Logically, more needs were created.

Population growth leads to the problem of a scarcity of natural resources that could be solved in two ways – migration to the new territories with a few natural resources that are not used (such as animals to hunt and fruit to gather)¹ or settle down in one place and start to cultivate plants and domesticate animals which was a novelty for those times². With the notion of a settled lifestyle, the concept of ownership of land, money and power emerged.

If, back in the days, the scarcity of resources could have been solved by moving to another place, nowadays, the problem is not that simple. The population growth is increasing sharply due to its natural exponential rates. Similarly, with the industrial revolution and development of technology, medicine is also steps ahead of what it was a hundred years ago. New cures and medicines were developed, scientists all over the world are fighting for the prolongation of human life.

¹ That way of solving scarcities was applied earlier in human history and was also popular among nomadic societies up to 18th century, for instance, in the territories of modern Kazakhstan and/or Mongolia.

² The settled lifestyle was popular in the early ages in the territory of modern Europe, which has led to the establishment of ancient cities.

As a result, death rates decreased tremendously, which led to the population we have on our planet today. The more people we have on our planet, the more food and resources we need, becoming a relevant problem. The chain of “more ..., more ...” never stops. As Meadows claims in her research if the recent growth trends continue, “the limits to growth on this planet will be reached sometime within the next one hundred years” (Meadows et al., 2004, p. 15)³.

A growing population is just a part of the problem, since not all the citizens of the world have contributed in the same way to environmental degradation. The countries with different levels of development have different levels of natural resources consumption, which involve different environmental impact levels, since the amount of waste produced by certain given society depends on the rates of production and consumption of that society (Daly et al., 2007): the countries with developed economies are more likely to negatively affect the environment and ecosystem than the less developing countries. As WWF Global underlines, “per capita Ecological Footprints of several countries are as much as six times larger than the available per capita share of global biocapacity” (“WWF Global,” n.d., p. 79).

Analyzing the average per capita ecological footprints of different countries, we could see that the levels of total consumption and production vary across the countries. The Living planet report map shows that United States, Canada, Australia, some European and Gulf countries have a high ecological footprint, which is mainly due to the high consumption of fossil fuels and the use of energy-intensive goods («WWF Global», n. d.). Citizens from less developed countries have less impact per capita on our planet⁴. The Figure 1.1 shows some comparisons of GDP with the ecological footprint of several countries.

Human activities have affected some global equilibriums of the planet⁵. With the development of agriculture and cattle breeding, greenhouse gases like carbon dioxide and methane are forming a thick layer in the atmosphere, which catches the radiation and heat from the sun’s rays and stops it from going back to space. This leads to the greenhouse effects – the overall temperature of the Earth surface have already increased by several degrees in comparison with the beginning of the last century (Marfenin/Марфенин, 2006). An increase of only 4 degrees Celsius leads to the

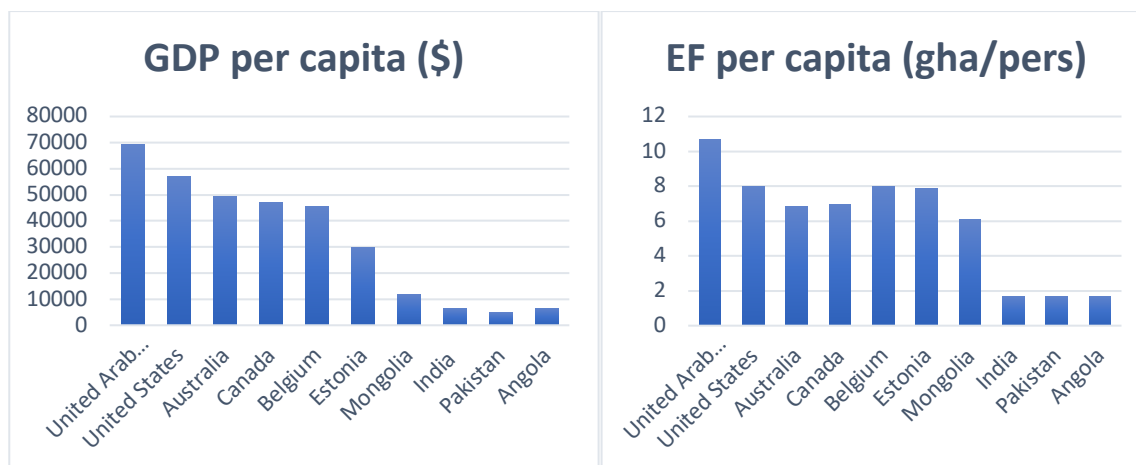
³ The sharp increase in the number of people causes the need for more food, which requires larger harvests. Living in current times, humanity is faced with the problem of harvesting more crops from the same piece of land. It has led to the development of new chemicals and pesticides to increase productivity. When pesticides were developed it seemed a perfect solution. However, as a result of pesticide abuse and not very careful use of those, we obtain enormous levels of pollution in soil and ground water by so-called DDTs.

⁴ That could be explained as follows: some countries’ population are consuming much more than less developed countries putting more pressure on nature and leaving a larger ecological footprint, which means that Nature could support more population of less developed countries (such as the majority of African countries, India, Bangladesh) than more developed ones (Canada, UAE, USA, European countries).

⁵ For instance, global warming is contributing to the melting of Arctic ice covers. That increases level in the water of World’s Ocean thus submerging lowland areas all over the world. Considering that those areas in the majority of cases is the fertile farming lands, the results could be devastating. In addition, the Arctic ice cover melting causes the change of current ocean streams, including the Gulf stream, which is responsible for the warm climate on the main land. Some scientists also relate global warming to the possibility of a spread of tropical diseases to the main land (Marfenin/Марфенин, 2006).

complete climate change (Barlybayev/Барлыбаев, 2016), making it one the most acute problems of humankind (Delmas, Etzion, & Nairn-Birch, 2013).

Figure 1.1. GDP per capita and environmental footprint (EF) per capita (gha/person) of some countries for 2016 (countries marked with environmental footprint of 1,75 may have EF less than that number)



Source: data taken from "The World Factbook – Central Intelligence Agency," n.d.; "Worldatlas," n.d.; "WWF Global," n.d.

With the extraction of coal⁶, emerged the necessity for creation of machines, mechanisms and engines that were working on coal, which could not have been imagined previously. industrial revolution took place in history creating more and more usage of renewable and non-renewable natural resources leading to the critical environmental situation everyone is confronted with nowadays. Pollution, scarcity and depletion of natural resources, deforestation, extinction of species – to name just a few. If the things carry on in the same way, following generations will not be able to survive on our planet simply because it would be impossible (Boulding, 1992). This is why the concept of sustainable development emerged.

The increase of natural resource consumption, population growth and different rates of country developments contributed to the inequality and high poverty rate in some areas of the planet. It is believed that there is a link between poverty and environmental degradation: they are related concepts. There are cases when the poor have no other option but to be engaged in unsustainable activities, because they have no financial or other means for sustainable ones. In some cases, poverty is caused by a poor environmental situation as when the poor are forced by the rich to live in less environmentally fortunate areas of the city, which causes health problems for the poor and inability to work leading to the worsening of their economic situation (Duraiappah, 1998).

⁶ In order to produce all the things, we are using every day, more and more natural resources are needed, which, when used in the production process, makes us face more industrial waste, which is even more dangerous. The population growth itself leads to the uncontrolled usage of natural resources, which, in turn, leads to tremendous environmental damage.

However, thinking about the production industry as the only major problem is incorrect. Every one of us is responsible for the current mode of development due to our consumption patterns. The amount of locally grown food we buy, the amount of meat, fish, fresh vegetables and fruit we eat, the rate at which we renovate our wardrobe and furniture at home, including technologically advanced products, affects our own ecological footprint («WWF Global», n. d.), which adds up to the footprint of the country we live in. The importance of the change of current consumption traits is an important step each and every person can make in order to stop environmental degradation and contribute to the global sustainable development.

1.1.2. Definition of sustainable development

Various authors have different opinions of the exact date of the emergence of the sustainable development concept. For instance, Bartelmus states that the concept emerged earlier when “the eighteenth-century Saxon forestry and mining official von Carlowitz (1713) is credited with inventing sustainability: Timber scarcity in Europe made von Carlowitz seek “equality” between reforestation/forest growth and harvest of timber so as to ensure a non-stop, persistent and sustained utilization” (Bartelmus, 2009, p. 1).

Some authors, on the other hand, claim that in the form we know it now the concept emerged after the public presentation of the Brundtland report⁷, also known as “Our common future”, which also increasingly incorporated the application of the concept into governmental and organizational policies (e.g., de Brito, Carbone, & Blanquart, 2008; Mebratu, 1998). The Brundtland report defines the concept of sustainable development⁸ as follows: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”⁹ (WCED, 1987, p. 43).

Sustainable development could be defined on the basis of the following key elements:

⁷ The General Assembly of the United Nations, in its resolution 38/161 of 19 December 1983, established a special commission that should deliver a report on environment and the global problematic up to 2000 and beyond, including proposed strategies for sustainable development. The commission later adopted the name World Commission on Environment and Development and the report is known as the Brundtland report.

⁸ However, before developing the topic with the definition of the concept, it has to be said that there are two known terms – sustainable development and sustainability. There are research investigators who use the terms interchangeably. However, some studies identify significant differences of two concepts. Focusing on the distinctions between sustainability and sustainable development connotations, we could consider the following argument: i). sustainable development is a broader term, which includes not only environmental protection, but also social and economic goals; ii). sustainability concerns are limited to the environment; iii). sustainability, though, is related to the resilience of ecology and ecosystems in general without considering other important pillars (Drummond & Marsden, 2005; Turner, 1988). On the other hand, there exists another point of view that states the following: sustainable development includes three types of sustainability: environmental (energy consumption, carbon emissions), economic (income per capita, GDP) and social (living conditions, literacy rate) sustainability (Carballo-Penela, 2010). Some authors also include institutional sustainability with examples such as R&D investment in GDP, corruption perception index, but we would consider three previous pillars as a theoretical base of our research. From now on the term we use in our work would be sustainable development, since we think it fully reflects all the issues we would like to focus on.

⁹ According to Google search, there are about 476,000,000 results on the concept of “sustainable development” (search performed 24.09.2019).

- “the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.” (WCED, 1987, p. 37).

The Brundtland Report established the ground for the 1992 United Nations Rio Conference on Environment and Development which is considered an important milestone, in order to continue the discussion on environmental and social problems of the current model of development. On the basis of the Brundtland Report, the Rio Conference on the Environment has put an end to economic development without considering environmental impact. “The irrational vision of an ‘affluent society’, an earthly material paradise, had dominated the mind of peoples for twenty years, to the point of blindness: all countries had thrown themselves into a competition of ruthless development and were concerned solely to measure their gross national income, on whose basis they compared themselves with one another, while being indifferent to the natural cost of this economic “progress”. During the same period people were losing basic benefits enjoyed by their ancestors, such as the sun, the air, water, soil and nature.” (Decleris, 2000, p. 17)¹⁰.

In addition to the widely used Brundtland report definition, sustainable development has been defined by various scientists, as we can see in Table 1.1.

From a similar point of view to Brundtland report, Kates, Parris, & Leiserowitz (2005, p. 10) define the concept as follows: “Humanity has the ability to make development sustainable—to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs”.

Further, Drummond and Marsden mention that sustainable development is maintaining and enhancing the quality of human life – social, economic and environmental – while living within the carrying capacity of supporting eco-systems (Drummond & Marsden, 2005). Following this point, Herman Daly notes that to maintain sustainable development, renewable resources should be used no faster than their regeneration rate; non-renewable resources should be used no faster than their renewable substitutes could appear; pollution and waste could be produced no faster than ecology could recycle and absorb them (Meadows, 1998). In other words, resilience rates of nature should be considered when discussing a permissible pollution level.

Moreover, when considering the emergence of the concept, Bartelmus, in his research, notes that the sustainable development could be defined separately as sustainability and development: by providing a historical review of the concept “all-

¹⁰ The Rio Conference is considered important because it proposed the world a completely different point of view on development: “no longer quantitative but qualitative development, in other words a balanced striving for all human values, whether material or intangible, in harmony with nature. The old vision of the “affluent society” had resulted in an unjust and ardent “consumer society”. The new vision proposes a “sustainable society” as the attainable model of a just and prosperous world.” (Decleris, 2000, p. 17). Also, the Conference established an action plan – what steps could be completed and goals accomplished in the 21st century, which was completely new in sustainable development history.

encompassing notion of development with a yearning for permanence and stability” could define the concept (Bartelmus, 2009, p. 1). Also, Meadows supports the same idea saying that development without sustainability is impossible (Meadows, 1998). By the same token, sustainable development, according to different authors could be defined as the ability to maintain from within over a period of time (Ehnert, 2009d).

Table 1.1. Definitions of sustainable development

AUTHOR	DEFINITION
Atkinson et al., 2014, p. 45	“Leaving future generations with at least as many opportunities as we have today”
Borland, Ambrosini, Lindgreen, & Vanhamme, 2016, p. 294	“Closed-loop systems that can support themselves in perpetuity, without any external support or input except sunlight”
Brundtland report (WCED) 1987, p. 43	“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs”
Clarke, 2011, p. 1	“Maintaining, renewing or restoring a specific resource so that what we currently use and enjoy will still be available to use and enjoy in the future”
Dresner, 2008, p. 69	“Carefully balanced environmental concern with endorsement of economic growth”
Hitchcock & Willard, 2009, p. 8	“Wakernagel: living well within the limits of nature”
Neumayer, 2003, p. 7	“Development ... is sustainable if it does not decrease the capacity to provide non-declining per capita utility for infinity”

Source: author's own elaboration.

Some authors' criticism of the Brundtland report could not be left out. The Brundtland report's definition of sustainable development is taken out of the initial context and is mostly put as one that is centered on the exclusivity of human species development and survival, instead of the survival and progress of all species, which was the initial meaning of the “Our common future” report (Borland et al., 2016). Secondly, the focus on the part of “without compromising future need of following generations” is questioned from the point of view that modern society is leaving polluted, low quality conditions for future generations not focusing on the needs of the upcoming generation (Goldsmith, Allen, Allaby, Davoll, & Lawrence, 1972). In addition, present generations, according to the Brundtland report, should defend the needs of future generations that, for now, might be unknown (Bartelmus, 2002). The third point claims that the general idea of sustainable development is desirable by all, however, the exact instructions to the behavior and needed actions are left unclear (Naredo, 1996). Finally, it is claimed that the Brundtland definition of sustainable development with its vagueness allows businesses to claim they are pro-sustainable, while, in fact, continuing their operations unhindered by environmental concerns paying lip service to the needs of future generations (McKenzie, 2004). Despite the offered critiques, however, the definition is considered to be the most complete in terms of the explanation of the concept.

There were many attempts to find the definition that is most exhaustive¹¹ (Lélé, 1991), that makes it a part of collective discussion. Pezzey and Toman claim that:

¹¹ Later in the current chapter the author would try to find and juxtapose the definitions of sustainable development available.

“overlapping and conflicting definitions rapidly proliferated. One result was that words such as ‘sustainability’ and ‘sustainable’ became common buzzwords—motherhood-and apple-pie concepts mouthed approvingly by anyone from media moguls to multinational mining companies—that often meant nothing more than ‘environmentally desirable.’” (Pezzey & Toman, 2002, p. 2).

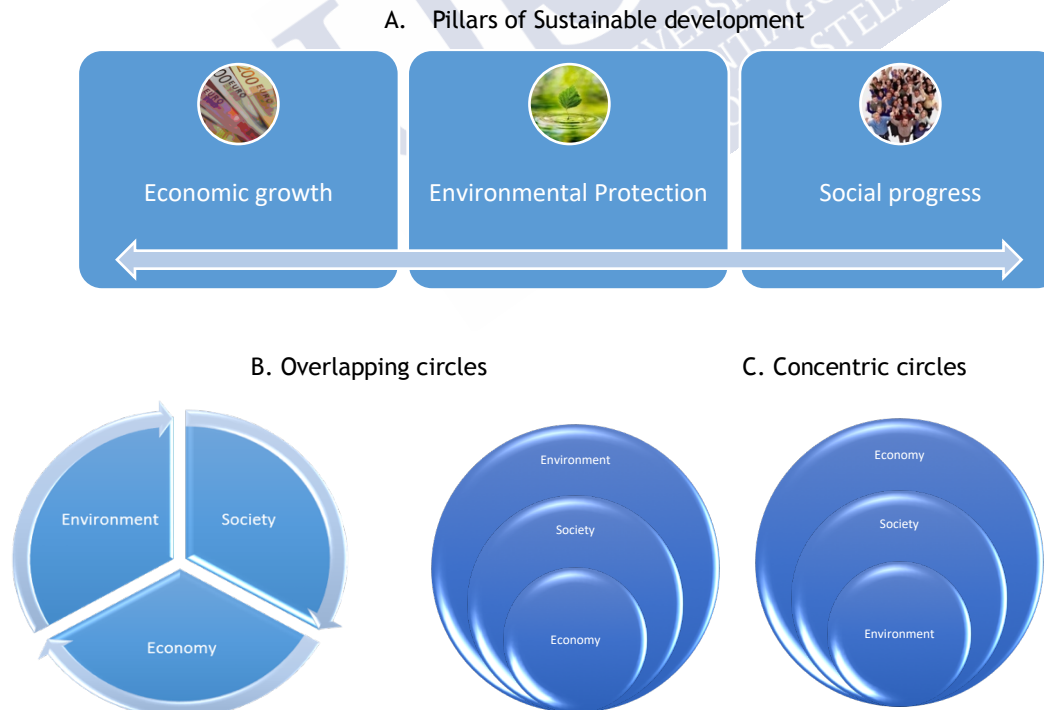
In spite of criticisms, ‘sustainable development’ is often an over-used term, where the Brundtland report definition goes to the heart of tackling a number of inter-related global issues such as poverty, inequality, hunger and environmental degradation¹² (Shah, 2002).

1.2. Dimensions of sustainable development

The Brundtland report claims that sustainability has three dimensions – societal, economic and environmental that are closely connected and could not be considered one without the other (WCED, 1987).

As stated in the IUCN report, “the core of mainstream sustainability thinking has become the idea of three dimensions, environmental, social and economic sustainability. These (Figure 1.2) have been drawn in a variety of ways, as ‘pillars’, as concentric circles, or as interlocking circles” (Adams, 2006, p. 3).

Figure 1.2. Three Visual Representations of Sustainable Development: Pillars, Circles, Interlocking Circles



Source: adapted from *The World Conservation Union (2006)*.

¹² We discuss each problem in the following sub-chapters considering them within the framework of sustainable development and matching each of them to the corresponding dimension of the concept.

If to consider the concentric circle image, at least two different options could be seen – one with the economy in the middle, and one with the environment in the middle of the circles. The first option clearly states that the economic outcomes are more important than any other and all other dimensions contribute to maximize the economic one.

The picture with the environment in the middle could be derived from the Daly triangle theory (described in detail in the section 1.3), where natural resources including raw materials, energy and biosphere are considered the base of the pyramid or, in other words, the base of everything else (Meadows, 1998), the most important being the environment: i.e. the environmental dimension could not be sacrificed in order to reach economic benefits.

1.2.1. Economic and social dimensions

Generally speaking, economic dimension explains principles of global economic growth, considering the economic growth of each country (WCED, 1987). Some variables proposed by the WCED (1987) are considering economic activity, industrial production, new technology transfer, the country debt, level of poverty, household income distribution, existence of crisis, transnational investment, and trade.

Applying economic sustainability means “more rapid economic growth in both industrial and developing countries, freer market access for the products of developing countries, lower interest rates, greater technology transfer, and significantly larger capital flows, both concessional and commercial” (WCED, 1987, p. 66). However, in this case, the environmental dimension should be respected. Hence, economic dimension focuses on the idea of maximizing income “while maintaining constant or increasing stock of capital” (Rogers et al., 2012, p. 43).

Considering the definition of social dimension, it is focused on the provision of equal social goods for all: equality, social justice, democracy, equal rights (WCED, 1987).

Social dimension of sustainable development could be defined as “a life-enhancing condition within communities, and a process within communities that can achieve that condition” (McKenzie, 2004, p. 12). The “condition” mentioned in the previous definition could be defined as equity of access to key services (in the case of society as a whole: health, education, transportation, housing), equity between generations, cultural integration, political activity (in the case of society as a whole: right to vote; in the case of the company: labor unions and participation in them), sense of community responsibility and social culture, mechanisms of a community to be able to identify its needs and strengths, to mention just a few (McKenzie, 2004). The social dimension centers on the influence company has on people outside and inside of the organization though its activity such as community relations, sponsorship and charity activities, employment of disadvantaged minorities, health and safety at work and employee education (Elkington, 1999; Labuschagne et al., 2005). That impact is spread on three different levels, being external population (i.e. organizational impact

on the community), macrosocial performance (i.e. organizational impact on regional/national level), and internal human resources (i.e. organizational impact on employees working in the organization) (Carballo-Penela, 2019; Labuschagne et al., 2005).

Social dimension of sustainable development is achieved when equity, diversity, interconnectedness, quality of life, democracy and governance are present in a society/community (McKenzie, 2004).

Avoiding poverty is a key objective for improving the people's quality of life. Poverty is widely seen and awareness is raised of all the society – nowadays over 1 billion people live below the poverty line earning less than 1 dollar per day (Shrivastava, Ivanaj, & Persson, 2013). We could say that recognition of poverty could be the first step of finding ways to combat it and help those in need.

Poverty should also be considered in terms of harm brought to society such as hunger, diseases, longer working hours, unsafe working environment, inadequacy of basic needs satisfaction (Rogers et al., 2012), not to mention adequate healthcare and education in poor areas.

Having its foundations in the concept of social justice (Dempsey, Bramley, Power, & Brown, 2011), equity is also a key factor of the social dimension of sustainable development. There are countries where the gap between the rich and the poor is high. As a result, in any economic decision the rich become richer and the poor – poorer. In those kind of societies with income inequity high levels of violence and political instability may be observed (Rogers et al., 2012), causing problems of social exclusion (Dempsey et al., 2011) and discrimination such as racism and ageism (Kellaher, Peace, & Holland, 2004).

Since equity and equality are the common goals of social dimension, we could say that sustainable development in this case could contribute to the minimization of the gap between the rich and the poor¹³.

1.2.2. Environmental dimension

The environmental dimension of sustainable development considers the importance of environmental degradation avoidance, environmental preservation and minimization of environmental impact of countries in particular and globally (WCED, 1987).

The natural resource depletion is one of the most essential reasons for the environmental issues we are facing now. The resource depletion considers the questions of renewability/non-renewability of the resources, i.e. the ability or disability

¹³ The described situation is happening in some countries such as South Asia – notably, in India – where could a progress in decrease of number of the poor may be observed («World Bank Poverty Report», n. d.). However, in some regions such as Sub-Saharan Africa the situation is still hard («World Bank Poverty Report», n. d.). Even if extreme poverty is diminishing, which is a good sign, the distribution of wealth in the world is still uneven – the 83% of the global income is owned by 20% the world's richest people (Ortiz & Cummins, 2011).

of a certain resource base to be renewed by nature in a period of time. As Karshenas states, most of the environmental issues are usually related with renewable natural resources, which are in danger of depletion as a logical result of 'excessive' use (Karshenas, 1994). Such renewable resources described in this paragraph are normally generated at the naturally given rates. This rate itself could be damaged by the overuse of this kind of resource. As Karshenas gives in the examples, “greenhouse effect, ozone layer depletion and acid rain, those related to soil degradation, deforestation, water resource depletion and pollution are all examples of the depletion or degradation of what essentially are renewable resources” (Karshenas, 1994, p. 2).

Moreover, it is a scientific fact, that “renewability” has its limits. In other words, the planet can renovate resources up to a certain level and that level is getting lower, affected by pollution and environmental damage. Likewise, the quality of renewable resources is also getting lower depending on the effects of continuous pollution on the environment (Karshenas, 1994).

The situation of non-renewable resources is even more dangerous. As Constantin claims, the non-renewable resources can doubtlessly be considered as a milestone of our society these days (Constantin, 2011), since we are using our resources at a higher rates than they can be renewed (Boulding, 1992). In the case of non-renewable resources, it could turn out to be a disastrous situation.

According to Meadows, the usage of natural resources affected by population growth, and food production need is growing by the exponential pattern which leads to the uncontrollable over-usage of our planet (Meadows et al., 2004). The exponential pattern could be explained by the so-called System Dynamics model – population growth causes the increase in the demand of food, which could be satisfied by the growth of capital. More capital requires more resources, the usage of which causes more pollution. Finally, pollution interferes with the population and food growth (Meadows et al., 2004).

In addition, the economics of any country is better off when people are consuming more. The theory of planned obsolescence of products¹⁴ contributes to economic prosperity harming environmental situation with its continuous production of unnecessarily obsolete products¹⁵ (Waldman, 1993). The higher the production levels of goods, the worse off the environment is (pollution, contamination of natural resources, depletion, etc.), and the worse the environment is, the more money we spend on the restoration processes – consequently, the worse the economy becomes.

Uncertainty is a relevant point when considering the topic of resource depletion. Despite the fact that scientific knowledge about all the environmental issues are well-documented, the threshold levels we are facing now about natural resources remain the subject of uncertainty, such as the natural resource size available. The uncertainty in this context becomes jeopardizing, since if the resource size is unknown, the usage of

¹⁴ The planned obsolescence products are the goods that have inefficiently short useful lives (Bulow, 1986).

¹⁵ The perfect example of planned obsolescence is the mobile phone industry, which have produced more mobile phones than people on the planet since 2014 (Brix-Asala, Geisbüsch, Sauer, Schöpflin, & Zehendner, 2018).

the resource is generally higher (Botelho, Dinar, Pinto, & Rapoport, 2014). Other uncertainty regarding natural resource usage may belong to the realm of the environmental situation, which is constantly updating: the future costs of natural resource use and its environmental impact is constantly changing, since more knowledge is explored on the topic from day to day. “Understanding of these uncertainties changes over time as a result of learning more about climate science, possible technological responses and behavioral responses by households, firms and governments” (Finus, Pintassilgo, & Ulph, 2014, p. 3). The described issue is global and does not relate to one specific country or society, because of which there is no doubt about the importance of international environmental institutions in the solution (Finus et al., 2014).

The next important point is irreversibility. Extinction of biological diversity and plant and animal life variety are examples of such. In the other cases, however, it is the cost of ecological repairs (i.e. resilience to environmental damage) or the time scales of resilience involved which makes these processes practically irreversible. For example the accumulation of greenhouse gases and in particular carbon dioxide is irreversible over periods of hundreds of years (Cline, 1991).

It is important to note the significance of each and every specie in the biodiversity structure that has taken centuries to evolve, so they form a harmonious and perfectly functioning system where every detail is important. Removing a tiny gear from the mechanism of biodiversity could lead to disastrous results. Examples of those could be the malfunctioning of the planet control systems such as the control of atmospheric gases proportion by some plants. The simpler the ecosystem is, the more unstable it becomes (Ehrlich, 1978), which means it could not support itself if something were removed. Human beings are known as the best creators of simple ecosystems, creating ecological problems for themselves, as can be seen in Australia, for example.

With regard to deforestation, the continuous demolishing of forests could result in negative consequences such as a poor genetic library of species used to create better adapted species (evolution) or to cure diseases. Almost all medical components were discovered through studying plants or synthesized after investigating the plant defense strategy. By demolishing forests humanity could destroy some important species that could help us find a cure for deadly illnesses such as cancer (Carballo-Penela, personal communication).

Another problem that is found under the concern of environmental dimension is pollution. Besides carbon dioxide emissions and chemical pollution, environmental deterioration brought about by over-usage of soils and pesticides such as DDTs is also considered a worldwide problem¹⁶.

And not even in Nature. The relation between all three dimensions of sustainable development described above is also a case for correlation. Some authors point out that

¹⁶ Being a type of pesticide that breaks down slowly (for decades), it can be found practically everywhere, even in Arctic seals' blubber (Ehrlich, 1978). Accumulating in the fat tissues it is passed along the food chain, causing dangers to life and decreasing reproductive capacity in some species (e.g., birds), which leads to the extinction of some of them. Everything in Nature is interrelated and correlated.

environmental improvements are not considered sustainable if not improving social and economic dimension, while social goals could not be considered sustainable when not contributing to the environmental and economic dimension (Rogers et al., 2012). The win-win-win situations cannot always be created, since tensions among dimensions of SD are a big challenge to deal with (Ehnert, Harry, & Zink, 2014).

1.3. Understanding how sustainable development works

In order to better understand how sustainable development works in practice, Daly's capital categorization is useful (Meadows, 1998). Daly distinguishes different types of capital and places them accordingly in a pyramidal structure (Figure 1.3), that is called the "Daly triangle".

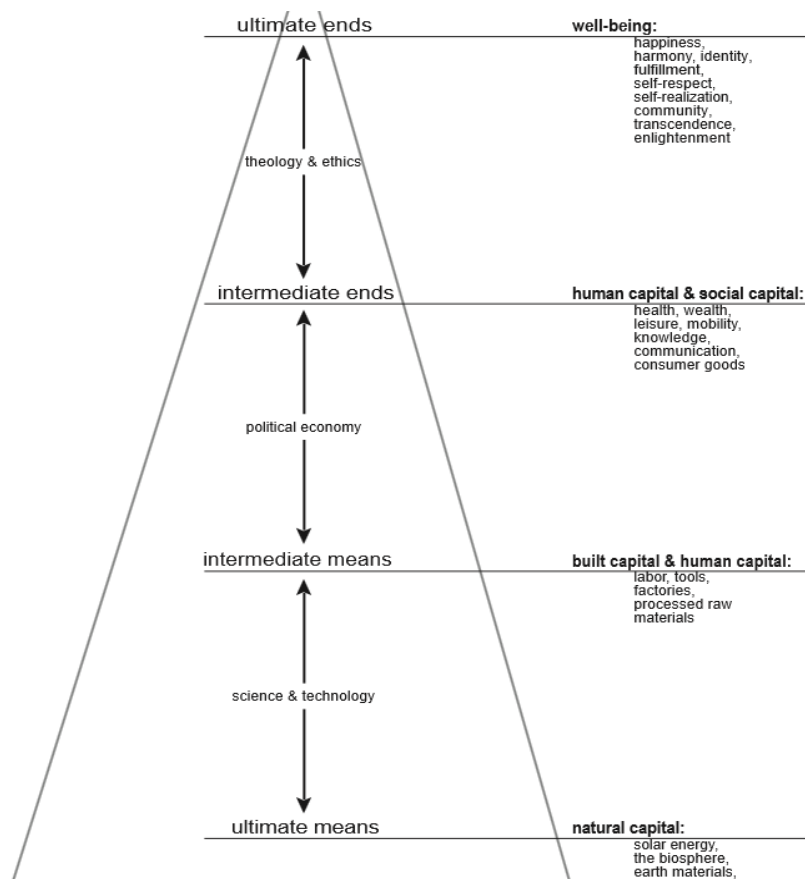
As can be seen, at the bottom or base of the pyramid are the ultimate means which consist of the natural capital of our planet: natural renewable and non-renewable resources. The next level comes with intermediate means, which are machinery, skilled labor and energy – so called built human capital¹⁷. The intermediate means use the ultimate means in order to produce raw materials. In economic terms, intermediate means are called input overlapping natural resources that are considered to be on the same level. The following stage up the triangle is called intermediate ends which are considered to be the first output products. The products are some public goods and consumer goods that are health, leisure, transportation. Being considered outputs, they are, however, instruments to achieve something bigger.

The intermediate means could be compared with Maslow's third-fourth level needs. However, people with the intermediate ends are not very happy and satisfied. So, at the top of the triangle with the ultimate ends are self-realization, self-actualization, and happiness and so on.

However, the ultimate ends could be defined according to the society the person lives in. For instance, the country (developing or developed), social class (high or low) and standards of living are considerable factors that could impact the definition of ultimate ends, which are qualitative not quantitative (Meadows, 1998).

Meadows claims that "sustainable development is a call to expand the economic calculus to include the top (development) and the bottom (sustainability) of the triangle" (Meadows, 1998, p. 44). Industrial society has a lot of indicators from the middle of the constructed model, but very few from the bottom and the top.

¹⁷ Here we refer to the man-made (meaning human-made) capital as to human capital or artificial capital, distinguishing it from natural resources or natural capital.

Figure 1.3. Indicators of sustainable development

Source: adapted from Meadows (1998, p. 42).

Sustainable development draws our attention to the top and the bottom of the pyramid, the natural resource stability and social stability, rather than simply economic goals. On the other hand, the pyramid gives the clear sign that economic, social and environmental dimensions of sustainable development are closely linked with each other and one could not be considered without the other (WCED, 1987). In addition, the sustainable society would want to produce the maximum possible ends with the minimum possible means involved (Meadows, 1998).

1.3.1. Weak and strong sustainability

The concept of sustainability could be presented in two options: strong and weak sustainability – and could be defined from different perspectives, ecological and theoretical respectively (Rennings & Hohmeyer, 1999). The same idea is supported by a number of researchers (Dresner, 2008; Neumayer, 2003).

The strong sustainability rule aims at the total sum of pollution and emissions not exceeding the assimilative capacity of Nature and that, at least, “irreversible and catastrophic effects on the global ecosystem should be avoided” (Rennings & Hohmeyer, 1999, p. 1). Otto (2003) claims that strong sustainability illustrates the

unconditional restriction of trade-offs, because of the limits of renewable and non-renewable resources in time. He strongly believes that ‘constant-natural-capital rule’¹⁸, given that man-made (artificial) capital is not an equal substitute of natural resources, although being complementary. The research also underlines that production, in the economic sense, will be stretched to the limits by the scarcity of natural resources. It could be said that strong sustainability is only possible if the natural ecosystem is preserved from depletion.

Likewise, “under the strong sustainability criteria, minimum amounts of a number of different types of capital (economic, ecological, social) should be independently maintained, in real physical/biological terms” (Ayres, van den Bergh, & Gowdy, 1998, p. 4).

On the other hand, weak sustainability requires that social welfare should be increased to the maximum possible level while the total costs of nature pollution of all kinds should be decreased to the maximum possible level. Weak sustainability assumes that artificial capital is a perfect substitute of natural capital (Ayres et al., 1998)¹⁹.

The issue is as follows: if the person or company decides to cut Amazonian forests, it is sustainably acceptable provided that the manufactured output would be greater or equal to the forests cut. If one certain country exterminates its natural resources, but produces a great amount of manufactured capital, that country would be considered as sustainable, although that kind of trait would lead to the obvious resource depletion and diminish the natural resource usage for further generations. This point of view is considered completely unacceptable by many researchers on the topic (Neumayer, 2003; Wackernagel & Rees, 1997).

The concept of strong sustainability does not allow any kind of substitution between capital types unlike the concept of weak sustainability. Moffat highlights the differences saying “the weak [sustainability] measures are based on neoclassical economics. The strong [sustainability] measure is based on the assumption that, ultimately, maintaining the planet’s ecology is vital and economic and social activities have to remain well within this web of life” (Moffatt, 2008, p. 82).

Some environmentalists are focusing their attention on a third type of sustainability, which is a so called ‘very strong sustainability’. The notion includes the idea that every representative of every single species has a right to live (Ayres et al., 1998). Very strong sustainability permits no substitutability and “would not allow any

¹⁸ Natural capital includes commercially available renewable and non-renewable resources, biophysical resources, waste sinks for human economy support: “in short, natural capital is not just an inventory of resources; it includes all those components of the ecosphere, and the structural relationships among them, whose organizational integrity is essential for the continuous self-production of the system itself.” (Wackernagel & Rees, 1997, p. 4).

¹⁹ Let us consider very poor economy with no capital or non-renewable natural resources, for instance: a country that possesses only renewable natural resources. For such a country sustainability converts to survivability. “Simple survival will then matter far more than concerns about environmental amenity, and survival will depend upon the sustainable use of the resource base.” (Pezzey, 1992, p. 11). For those countries survivability remains to be the only way of development that prevents declines in well-being below adequate minimum for human life (Dresner, 2008).

element of natural capital to be depleted” (Dresner, 2008, p. 83). It means, for instance, no allowance for natural gas extraction.

Weak sustainability is harshly criticized by many scientists. The main argument is that the whole ecosystem is endangered by human beings. For instance, there is no substitute for ozone layer depletion. Since humanity still needs food from the oceans, there is no substitute for that. There is an idea that maybe in the future technological advances would substitute the examples listed above (Pearce, Markandya, & Barbier, 1989). However, until then applying the theory of risk aversion, the logical behavior would be the protection of the natural environment, since it is the source of living for human beings.

1.4. Sustainable development at a business level

1.4.1. Sustainable development of companies

The implementation of the concept of sustainable development should start in each and every country. As different industries that are composed of various companies are the base of economic development, the companies could play a key role in contributing to sustainable development²⁰. Following this idea, Elkington highlights the issue, noting the key idea: in order to be sustainable, it is necessary for companies to meet some goals that are not compromising economic, social and environmental aspects of living at present and also in the future – 3P (people, planet and profits) (Elkington, 1999)²¹.

By the same token, “sustainable companies will need to consider their long-term strategies more seriously in business decisions. In fact, the very existence of many companies will depend either on the continued ability of certain natural resources or their ability to adapt and reinvent themselves.” (Bouma et al., 2001, p. 24). The organization is considered to be sustainable if it has its “critical resources available in the future” (Ehnert, 2009d, p. 57).

Making business sustainable is considered on the basis of the triple bottom line approach. From the point of view of economic dimension, the company first should ‘sustainabilize’ its accounts and reach transparency in the audit and accounting systems (Spangenberg, 2005). The economic dimension from the sustainable business angle could be defined as “the profit figure used as the earnings figure in the earnings-per-share statement, part of standard accounting practice” (Elkington, 1999, p. 74). It seems an old-fashioned way to control profitability of any given company. However, some researchers underline that in the case of sustainable development, the accountants check many numbers including expenditures on social and environmental

²⁰ For instance, nearly two-thirds of the worldwide emissions of industrial methane and carbon dioxide (CO₂) between 1751 and 2010 were emitted by not more than 90 companies (Schaltegger, 2018).

²¹ He defines sustainability more or less similar to Brundtland report (ability to satisfy present needs without limiting future generations), however, adding up three dimensions he claims the following: “sustainability is the principle of ensuring that our actions today do not limit the range of economic, social, and environmental options open to future generations” (Elkington, 1999, p. 20).

goals, which contributes to the sustainable activities of the company (Elkington, 1999).

It is also pointed out that the economic component of the triple bottom line is not synonymous to the company's financial performance (Henriques & Richardson, 2013). Financial reports are records of money provision for investment necessities or consumption of the company. However, the impacts of company expenditures is not reflected in the financial reports. The transparency of the operations on social and environmental performance lies within the boundaries of economic dimension: "means by which society uses human and natural resources in the pursuit of human welfare" (Henriques & Richardson, 2013, p. 157).

The social dimension of sustainable development at a company level deals with the social impacts of doing business associated with the industry and commerce, turning business into a part of society. The social dimension focuses on the organizational impact on people outside and inside of the company (Elkington, 1999). "Issues often covered are community relations, product safety, training and education initiatives, sponsorship, charitable donations of money and time, and employment of disadvantaged groups" (Elkington, 1999, pp. 87–88), disciplinary and security employment practices, health and safety at work, career development, employee education and development of human capital, i.e. the possibility of employees to gain reasonable income, having psychological well-being, training and skills (Labuschagne et al., 2005).

The social dimension is important in terms of trust in a working environment. If the level of trust between co-workers is high due to common ethical and social norms of the organization, then doing business is easier and the costs are less (Fukuyama, 1995). Furthermore, the high level of trust involves the development of innovative ideas and vary social relationships between employees, creating the ability of the employees to work together on the achievement of common goals (Fukuyama, 1995), which is critical in the process of gaining sustainable development (Elkington, 1999). It could also be said that the organizational environment like that promotes an innovative vision of solutions of problems where people are willing to contribute to the important movements towards positive behavior.

Other activities contributing to the social dimension of sustainable development within the company could be ones considering stakeholder involvement: the stakeholder's influence degree on important decisions for the company and stakeholder empowerment, and the quality and quantity of information available to the company stakeholders (selected ones or all of the stakeholders) (Labuschagne et al., 2005).

We also could mention the principle of justice and solidarity; ethical decision-making at work by top management of the company, for instance, also affects sustainable society. Principles of kinship, family and healthy mass media are also important milestones in achieving social sustainable development (Decleris, 2000).

In the same way, environmental dimension at business level is important for companies to establish in order to be sustainable: it deals with questions of types of natural capital affected by the company operations and the degree of such an impact (Elkington, 1999). At a business level, the environmental dimension of SD involves minimizing the environmental impact of companies' activities²².

Business has a strong impact on the local and global environment. In their daily activities, companies need natural resources, producing wastes and emissions that affect survival of the ecosystems. In addition, industrial accidents and failures provoke ecological catastrophes²³ that tremendously affect the environment not only of the local area, but also all over the world. Those ecological industrial catastrophes have thrown humanity several steps back from achieving sustainable development (business level and global level) (Dresner, 2008). All those are results of "careful" maintenance of the facilities in the corporate world²⁴.

Literature on environmental management has pointed out different factors that lead companies to care about the environment. For instance, governmental regulations of waste control and product disposal, or stakeholders pressure usually encourage companies to improve their environmental performance (González-Benito & González-Benito, 2010; Nemetz, 2013). With independence of the specific enabler(s) that affect a company, organizations can put into practice different actions to improve their environmental performance. Top and intermediate management is mainly responsible for carrying out actions such as designing products considering their disassembly, reusability and recyclability; acquiring clean technologies/equipment; selecting cleaner transportation methods; considering green products when purchasing; planning production activities focused on reducing waste and optimizing materials exploitation; acquiring ecological materials for primary packaging or designing processes focused on reducing resource consumption and waste generation during production and distribution (Carballo-Penela & Castromán-Diz, 2015a; González-Benito & González-Benito, 2005).

In addition, human resource management can also play a relevant role to implement actions to improve business environmental performance. Practices such as education of the human resources on the topic of environmental protection, raising awareness of consequences of environmentally unfriendly behaviors (Bowser, Gretzel, Davis, & Brown, 2014), developing environmental performance metrics, encouraging employees' environmental behavior through rewards, creating a green organizational

²² Environmental impact of a company is defined as the impact of that company's activities and processes on the physical environment such as soil, water, air, biodiversity. The reduction of environmental impact of a company increases its environmental performance (Schaltegger, Burritt, & Petersen, 2003).

²³ Only at the end of 20th century until now humanity has caused a big number of accidents, especially industrial ones. The vast majority of them changed the ecological state of the world. To name just a few: 1986, Chernobyl, Ukraine – nuclear power plant accident; 2002, Galicia, Spain – loss of half a million barrels of crude oil from the Prestige tanker sinking; 2010, Gulf of Mexico – massive oil spill from British Petroleum drilling platform; 2011, Fukushima, Japan – nuclear reactor meltdown (Nemetz, 2013).

²⁴ The results could be devastating not only for the environment, but also for the corporations who caused such an accident. For instance, after a toxic gas release, Union Carbide had to disappear as a corporate entity. Such catastrophes could lead to the termination of the corporate license to operate (Nemetz, 2013).

culture, recruiting people concerned about the environment (Cohen, Taylor, & Muller-Camen, 2012) can contribute to this task. These HRM practices can lead employees to perform voluntary or non-voluntary behaviors with regard to the environment.

The environmentally committed company “strives for continuous improvement in the efficiency with which it uses all forms of energy, in reducing its consumption of water and other natural resources, and its emissions into air, water, and land of hazardous substances. It also entails a commitment to maximize the use and production of recycled and recyclable materials, the durability of products, and to minimize packaging.” (Epstein, 2008, p. 41).

A key question with regard to sustainable development at a global and business level deals with tensions among the three dimensions of sustainable development. One of the tensions among the dimensions could be described as economy vs ecology, pointing out the importance of financial gains to the companies rather than environmental well-being. Likewise, the social dimension vs economy could also be described as such (Elkington, 1999). Many definitions of sustainable development implicitly assume that win-win-win situations between the three dimensions can be created (Ehnert et al., 2014). However, companies’ survival depends on obtaining profits and the economic dimension usually becomes dominant when win-win-win situations are not possible (Ehnert et al., 2014).

All in all, if business only considers economic gains, the environmental and social dimension will be still endangered, by which the overall sustainable development could be jeopardized.

1.4.2. Competitiveness of applying sustainable development issues

Being tied to financial benefits, companies might not be very interested in social and environmental goals if sustainable development is not leading to the gain of a competitive advantage on the market²⁵ (Trumpp & Guenther, 2017). On the other hand, competitive advantage, avoiding sustainable development, could affect companies very negatively, for instance, the consumers’ awareness of the corporate impact on environment and society²⁶.

The application of sustainable development practices at a business level in order to create competitive advantage on the market could be considered from two different perspectives: external and internal (Walsh & Dodds, 2017). The external one is focused on the company’s external operating environment and the ways the company could capitalize on external opportunities and avoid threats. The internal one assumes

²⁵ Competitive advantage is the ability of the organization to create the value in a more economical way in comparison with the competitors (Lepak & Gowan, 2008).

²⁶ The illustration of the idea could be Wall-Mart (USA). The company’s main objective is to offer products at the lowest price possible. However, later investigations have shown that the company is achieving its goal by not paying the minimum wage, economizing on healthcare plans of its workers and forcing local businesses to lower their wages. Moreover, the ecological footprint of the company is enormous. Taking into consideration all those elements, some US communities reject Wall-Mart on their territory. Nowadays, the company has to work a lot to minimize its environmental impact and its treatment of its employees in order to gain a competitive position on the market (Epstein, 2008).

a resource based view, which studies the firm's ability to gain strengths and diminish weaknesses based on the resources internally available to the company (Barney, 1991).

In a highly competitive business environment, it is very hard for companies to differentiate themselves only by the high quality of their products or services. Companies need new sources of competitive advantage, which may put them in the winning position on the market and in the eyes of consumers after benchmarking and may let them adjust to the highly flexible business environment of today. Being sustainable in doing business can pay off by providing competitive advantages to the company, attracting customers and encouraging efficiencies (Walsh & Dodds, 2017).

In particular, applying environmental practices may in first place i). make a company energy efficient, preventing environmental damage, i.e. decreasing company environmental footprint; ii). create trust in environmental stakeholders, differentiating products and positioning the company on the market; iii). diminish public pressure and concerns about the environmental footprint of the company; iv). increase consumer demand on company products/services (Walsh & Dodds, 2017); and v). create shared value (Porter & Kramer, 2011), which means employing business values together with social and environmental values in company strategy.

Researchers have noted that sustainable development plays an important role in establishing a trustful and positive corporate image for the customers (Berns et al., 2009; Trumpp & Guenther, 2017) by creating shared value (Porter & Kramer, 2011) and improving the environmental situation, which increases the reputation of the firm²⁷ (Savitz, 2012). In addition, companies being environmentally and socially responsible may use their natural resources more efficiently, which may increase profitability (financial performance) (Trumpp & Guenther, 2017). Companies using reactive environmental strategies tend to pay more (have higher costs of implementation of those strategies), whereas companies using proactive strategies may have higher benefits than costs (Trumpp & Guenther, 2017).

In practice, some studies have shown that business sustainability affects the financial results "through both enhanced revenues and lower costs" (Epstein, 2008, p. 55) and researchers have underlined there is a positive link between environmental/social performance and financial performance of the firm (Pava & Krausz, 1996). However, results are not conclusive and some investigators noted that there could be a negative link between the two (Posner & Schmidt, 1992; Vance, 1975), whereas others point out that there is no significant statistical data showing the connection between the concepts (Anderson & Frankle, 1980; Aupperle, Carroll, & Hatfield, 1985; Freedman & Jaggi, 1982).

As regards the time frame, the financial performance of proactive firms tend to be profitable in the long-run (Berns et al., 2009), but when measured in the short-run they may have poor results (Carballo-Penela & Castromán-Diz, 2015b); the studied sector (Trumpp & Guenther, 2017) or the context of the country where the study is conducted

²⁷ Excellent sustainable performance and contribution to the sustainable development might be a desired outcome for many corporations because of the reduction of organizational footprint on society and environment (Epstein, 2008).

(Carballo-Penela, personal communication) should be considered when analyzing the relationship between organizational sustainability and firm performance.

1.4.3. Sustainable development indicators

In assessing three pillars of sustainable development it is necessary to have careful and clear indicators of economic, environmental and social issues in order to be able to judge if certain actions contribute to the achievement of sustainable development or have negative impact on meeting the criteria for sustainable development. It is obvious that development of such indicators is hard work because of the interrelations between them.

Being used both at global and business levels, indicators should possess certain characteristics in order to be able to embrace all the aspects of the particular dimension and measure it carefully. The indicators must be clear in value and content (understandable and making sense), compelling, policy relevant, feasible (measurable at reasonable cost), sufficient, timely, appropriate in scale, democratic, supplementary, participatory, hierarchical, physical, leading and tentative (Meadows, 1998). After satisfying all the characteristics, proposed indicators were classified into different types such as descriptive, performance, efficiency, production, regulatory, quality ones (Warhurst, 2002), measuring different aspects of human activity.

During recent years “considerable effort has gone into the development of Sustainability Indicators. At a global level independent initiatives have come from the UN, OECD, the European Union, national governments, NGOs, academia and the business community” (Warhurst, 2002, p. 8). The set of indicators developed could be divided into input, output, process and achievement indicators each and every one of which is measuring specific characteristics²⁸. For example, at a global level if the quality of life is measured, indicators such as level of education, per capita income, access to the health care and green space are used (Rogers et al., 2012).

Different proposals have been developed at a business level, some examples of which are shown in Table 7.2 (see Annex 7.1). Warhurst (2002) developed what he called special Sustainability Performance Indicators so that stakeholders could clearly see the exact picture of how business acts. These indicators are an effective and specific option of measuring performance information to target user groups. They serve to sum up the great complexity of performance database in an analyzable quantitative or qualitative manner. The indicators on a business level are also used to produce annual sustainability reports (Rogers et al., 2012).

²⁸ However, measuring business performance after the application of Sustainability Management within the firm's operations is not enough to reach success. The successful management of firm's natural resources is needed. As an example, let us take the Unilever firm's performance: a big company present in 190 countries with 2 billion consumers all over the world and it is one of the world's bigger buyers of cod fish used in their premium product –fish sticks. Since codfish became almost extinct, the population of the species decreased, which resulted in a dramatic price increase of cod. The company tried to substitute the ingredient with another product, which meant the UK consumers stopped buying it, which affected firm profitability (Winn & Pogutz, 2013). From this example, it can be seen that from the point of view of the company, poor resource management led to a firm's inability to proceed its product line and from the point of view of environmental protection, the abuse of natural resources damaged the existence of some species.

By the continuous usage of these indicators the firm not only monitors the current performance of the company and its impact on the environment, but also receives some warnings related to their business activities which affect the managerial decisions on future strategic development: “fault diagnosis, early warning, assessment of trends, competitor benchmarking, identifying options for improvement, assisting external stakeholders in understanding and reacting to performance trends” (Warhurst, 2002, p. 12).

Similarly, GRI standards for sustainability reporting of companies include various sustainability indicators for organizations: GRI 101, 102 and 103 – and the three series of topic-specific Standards: 200 (economic topics), 300 (environmental topics) and 400 (social topics). For instance, GRI 306 measures waste types and disposal methods and transportation of hazardous waste, among others; GRI 201 and 202 measure economic performance and market presence; GRI 402 measures labor/management relations and GRI 404 focuses on training and education («Global Reporting Initiative», n. d.).

Under the triple bottom line concept, economic dimension could be measured by “long-term sustainability of a company’s costs covering demand for its products or services, of its pricing and profit margins, of its innovation programs” in addition to its profit-loss accounts, income statement and balance sheet (Elkington, 1999, p. 77).

With regard to the environmental dimension, the potential issues and environmental risks could be reflected in the following indicators: i). financial indicators (“provision for fines, insurance and other legally related costs; and landscaping, remediation, decommissioning, and abandonment costs”); ii). stakeholder impact of the company (“the number of public complaints; the lifecycle impacts for products; energy, materials, and water usage at production sites; potentially polluting emissions; environmental hazards, and risks; waste generation; consumption of critical natural capital; and performance against best-practice standards set by leading customers and by green and ethical investment funds”) (Elkington, 1999, p. 81). In order to measure those impacts the international environmental management standards, such as ISO 14001, were developed (Elkington, 1999).

The social dimension of the triple bottom line at a business level could be measured by its own set of indicators divided according to their impact: internal HR, external population, macro social performance and stakeholder participation (Labuschagne, 2005). The examples of the indicators can be seen in Table 7.1 (found in Annex, section 7.1). The indicators of the social dimension of the triple bottom line are based on some items such as “animal testing, armaments or other military sales, community relations, employment of minorities, human rights, impacts on indigenous peoples, involvement in nuclear power, irresponsible marketing, land rights, oppressive regimes, political contributions, trade union relations, wages and working conditions, and women’s rights” (Elkington, 1999, p. 88). Some of the indicators mentioned are geo-specific and industry-specific. For instance, if wages and working conditions could be classified as social dimension indicators applicable to almost

every industry and working entity, the animal testing is a more specific one applicable to certain industries such as beauty industry or pharmaceuticals.

1.4.4. Management theories regarding environmental sustainability at a business level

Different organizational theories could be used to support research on sustainable development at a business level. The organizational theory as a concept could be described as “an intellectual activity which utilizes methodological and conceptual resources from social science disciplines such as sociology, social psychology, and anthropology in order to provide explanations of how things happen in the sphere of authoritatively co-coordinated human enterprises” (Watson, 2007, p. 109). The majority of management theories emerged between the 1960s and 1970s and have remained almost intact since that period (Suddaby, Hardy, & Huy, 2011). Because of that, the theoretical framework of sustainable development should be mellowed more in order to influence managers and help to discover solutions to the current issues (Corley & Gioia, 2011). Table 1.2 is a summary of theories related to the topic of the current investigation.

All the theories are complex and complicated; however, one theory is lacking that would clearly explain management of sustainable development in business practices and clearly note the issues that need a solution.

Under those circumstances, we would like to discuss the agency theory and ecocentric dynamic capabilities theory (EDCT) that we consider particularly interesting for the current research. We think that those two theories could be the best to explain and explore the management of sustainable development principles when doing business.

The agency theory (Eisenhardt, 1989; Gomez-Mejia & Balkin, 1992; Poole, 1999; Ross, 1973; Stroh, Brett, Baumann, & Reilly, 1996) emerged to explain the relationship and interaction between stockholders and agents (Hill & Jones, 1992). However, developing the theory through decades embraced wider relations between the principal and the agent, containing several concepts discussed below.

Agent and principal within the theory could be described as two parties where the principal (one party) delegates work to the agent (another party) through the metaphorical contract/agreement between them (Eisenhardt, 1989; Zsidisin & Ellram, 2003).

Table 1.2. Current Managerial Theories: Environmental Sustainability Connections and Omissions

CURRENT MANAGERIAL THEORIES: ENVIRONMENTAL SUSTAINABILITY CONNECTIONS AND OMISSIONS		
THEORY	ENVIRONMENTAL SUSTAINABILITY CONNECTIONS	ENVIRONMENTAL SUSTAINABILITY OMISSIONS
Institutional theory	External shocks influence environmental strategy. Firms gain environmental legitimacy by complying with external/societal environmental pressures.	The natural environment is external to an organization while in reality an organization is embedded in, connected to, dependent on, and integrated with the natural environment.
Resource-based view	Sustainability strengthens organizational competitiveness by enabling its unique resource capabilities.	Potentially accelerated changes in ecosystems may cause highly unpredictable impacts, due to the change magnitude, period of disturbance, and cascading effects at multiple levels. Turbulent conditions would require new organizational capabilities to respond to such uncertainty.
Natural resource-based view	The natural environment is seen as a provider of source and sink resources for human usage and should not be abused or exceed related to carrying capacity.	Nature is not only a collection of disaggregated resources for human business use but also a set of complex, interacting phenomena that need to be available to humans, their businesses, and the rest of nature, both now and in the future.
Agency theory	Principals and agents may have similar or divergent interests related to organizational interactions with the natural environment.	Very limited assessment of the value of the natural environment to the extent that environmental actions may enhance firm performance.
Transaction cost	Economic transaction costs should include costs associated with use of environmental resources.	Transaction cost barriers are not established for the natural environment to the extent that nature (i.e. water, air) property rights, usage, and terms of trade are not known.
Resource dependency theory	Firm survival depends on its ability to procure critical resources from the external environment.	The interdependence between organizations and ecosystems is not addressed to the extent that they are mutually interactive and integrated with each other.
Stakeholder theory	The natural environment may or may not be recognized as one or more stakeholders. Environmentalists may or may not be legitimate and/or powerful stakeholders.	Long-term quality of life for all stakeholders, making connections between and among them is not addressed.
Strategic choice theory	Businesses are affected by the external environment and the interactions between them.	Business is not a separate entity but is in fact embedded in nature. The interdependence between and among individuals, organizations, and societies, and the rest of nature are not addressed.
Social network theory	Sustainability issues may affect how individuals interact and relate to each other.	Human individual, organizational, and societal interactions are important, and can be applied to natural environment issues, but typically, interactions between humans and the rest of nature are not addressed.
Ecocentric dynamic capabilities theory	The theory underlines the importance for businesses to act not only within business boundaries but also within the biophysical boundaries.	The highly ecocentric transformational strategy of zero waste tolerance is hardly applicable to the today business processes.

Source: Borland et al. (2016); Starik & Kanashiro (2013).

The modern agency theory states the following. Firstly, the theory says that principals and agents may have similar or divergent interests related to organizational objectives (Starik & Kanashiro, 2013): each party has its own interests and acts according to those interests (Muster & Schrader, 2011), which may result in unexpected behavioral consequences. Secondly, the concept of risk-sharing discusses the parties and their interactions between each other. “Specifically, agency theory is directed at the ubiquitous agency relationship, in which one party (the principal) delegates work to another (the agent), who performs that work” (Eisenhardt, 1989, p. 58). Finally, the monitoring of the agent adds control of agent’s behavior that is important to avoid self-serving behavioral patterns (Fama, 1980).

The agency theory is of particular interest to the current research due to its relation to the explanation of possible employee (agent) green behavior, which is in the organization’s (principal) interest. The motivational factors and implications of the principal-agent relationships could play a key role in understanding the reasons for employees in behaving in a pro-environmental way or avoiding pro-environmental patterns in everyday activities at work. According to the theory, the agent may act in his/her own interest, neglecting the organizational (principal) aims and goals, which could be a problem in the case of pro-environmental behavior. In detail, it means that if pro-environmental behavior is not in a personal agent interest, the avoidance of such behavioral patterns would occur when not controlled. One of the proposed solutions could be the motivation of current employees by introducing variable pay methods and monetary and non-monetary incentives in order to promote certain behavioral patterns at work (Stroh et al., 1996). Also, the organization that desires to adjust the company goals with those of employees have to consider possible conflicts of interests between two parties through the professional career of the employee in the organization (Calvo & Calvo, 2018).

The ecocentric dynamic capabilities theory (EDCT) adds the ecological sustainability principles to the strategic management ones, creating and adding new strategies to the strategic management of the firm (Borland et al., 2016; Borland, Lindgreen, Ambrosini, & Vanhamme, 2018).

To be precise, EDCT emerged as a bridge between ecological sustainability and DCT, underlining the importance for business to act not only within business boundaries (including strategic management), but also within the biophysical boundaries (Borland et al., 2016), helping the companies to develop risk resilience in emergency situations and during unexpected issues (Bogodistov & Wohlgemuth, 2017).

Ecological sustainability defined as “the capacity for continuance into the long-term future, living within the constraints and limits of the biophysical world” (Porritt, 2007, p. 33), is a relevant concept for EDCT, as well as the anthropocentric and ecocentric perspectives of sustainability. The anthropocentric view suggests the superiority of the human being and inferiority of all the other species. Ecocentric view proposes that the nature and human beings must function in synthesis and human being actions should be ruled by the limits of nature (Borland et al., 2016). Those two

extremes of the continuum explain two controversial points of view about the relationship human being-nature. As we move across the continuum from one extreme point to another, we become more or less ecocentric.

The adopted strategy of the company belongs to the continuum depending on the level of ecocentrism or anthropocentrism it includes. To put it another way, firms could follow three types of strategy: traditional (zero tolerance with environmental issues, production with the usage of huge amount of raw materials and polluting the environment heavily might be a perfect example of such a strategy), transitional (focusing more on recycling wastes, trying to produce less wastes, adopting new less-raw-material production processes could be examples of such) and transformational (here the waste generation is not reduced, but not acceptable by any means even in small amounts, this strategy is highly ecocentric) (Borland et al., 2016).

For company management, the theory may provide a very handful framework for changing the existing anthropocentric strategies for the ecocentric ones applying the ecological sustainability concept through EDCT practices (Borland et al., 2016). EDCT may help to reconstruct the existing firm strategies sticking to more ecological ones and to develop the new ones that are more environmentally pro-active²⁹. The important part of those strategies is the fact that they could be used in any firm regardless of its geographical location, economy development level, size, the number of years it has functioned and the type of the product or services it offers (Borland et al., 2016).

The future application of EDCT may result in the achievement of “ecocentric competitive advantage or competitive advantage for sustainability” (Borland et al., 2016, p. 303), which will show that business success could be perfectly combined with ecological responsibility leading to even better results.

The theory is interesting for current research for several reasons. The first reason is its contribution to highlighting the importance of the environmental dimension of sustainable development while doing business. The theory links ecology to the business-making and underlines the significance of environmental dimension. Secondly, EDCT claims that businesses must act not only within business boundaries but also within the biophysical boundaries (nature and humans synthesis rules human actions by the limits of nature and planetary boundaries) (Borland et al., 2016; Schaltegger, 2018), offering the option of recourse renovation and reinvention, creating more value on available resources and developing risk management for resource inexistence or less availability. The theory proposes a completely new transformational strategy to the companies where waste generation is not permitted and all waste must go back into the industrial cycle so that no waste is created and no

²⁹ The pro-active environmental strategies are referred to as “the way how businesses can develop strategies in response to the natural environment as a contextual variable” by “continuous [...] resource building, selection and deployment for value creation and distribution, by navigating through and interacting with the structural and social conditions that influence their value, with the purpose to prevent negative effects, or create positive impacts on the natural environment, beyond what is legally required or accepted as a standard practice” (Lepoutre, 2008, p. 38, 46).

pollutants liberated, i.e. the theory applies the strong sustainability principles of highly ecocentric strategies (Borland et al., 2016) to the business making process.

1.5. Sustainable development and banking sector

Banks are very important players in the economic system of any country. Their *raison d'être* is being intermediaries between those who need money and those who have excessive capital. The banking service spectrum includes the following: savings, lending, payments, mediation and advice, investment, guarantees, ownership and trust of capital, among others (Bouma et al., 2001).

Banks exist in many forms and shapes of financial institutions providing their services to the customers, which could be divided into two main groups: depository institutions (including commercial banks, savings institutions, cooperative banks and credit unions) and non-depository institutions (such as securities market institutions, investment institutions, contractual savings institutions and multilateral and governmental financial institutions). The main difference between them is that depository institutions lend a significant amount of funds in terms of loans and mortgages; and non-depository ones finance their activity by issuing shares and other types of securities on the market. It should be noted that many banks are involved in both types offering the mix of the two: loans and shares, among their services. They are called universal banks (Jeucken, 2004).

Lately, the terms ethical banking, green banking and sustainable banking have become popular. Banks that claim they are green, sustainable and/or ethical sign some international agreements and standards such as The Principles of Responsible Investments or The Equator Principles (de Clerck, 2009). Those banks share equal principles that include “a commitment to sustainability, ‘do no harm’, responsibility, accountability, transparency and sustainable markets and governance” (de Clerck, 2009, p. 210), taking into account some aspects such as social, environmental, ethical or philanthropical (Cea Moure, 2010). For instance, green banks mean “using environmentally friendly practices at every level from adapting environment friendly practices within the banking organizations and also considering the environmental aspect of the projects while funding and investing in commercial projects” (Shaumya & Arulrajah, 2017, p. 79). Ethical banks mean doing business by developing the socio-economic aspects of poor regions in the country. Sustainable banking, in turn, means the application of sustainable principles into everyday business such as HRM, stakeholder communication, suppliers communication, etc. (Cea Moure, 2010).

Even if banks do not produce goods, the sustainable development concept is applicable to the sector in terms of indirect influence on a bank's stakeholders and direct influence on internal activities of the bank, albeit for a long time the link of sustainable development issues to the banking sector was negated (Shaumya & Arulrajah, 2017).

The bank products are referred to as external issues (Bouma et al., 2001). The external issues could influence the environmental situation in a very positive or negative way in terms of the decisions banks make. Since banks could lend money, supporting or not

supporting certain business sectors and business activities, the lending service requisites of banks could be the motivator of certain behavioral patterns by the companies (Raut, Cheikhrouhou, & Kharat, 2017).

Banks are in a very favorable position in terms of research possibilities – any banking entity could conduct research on the company trying to borrow money in terms of their activity, business sector, and, among other things, its environmental footprint and environmental performance based on its environmental policy (Jeucken, 2004). For instance, sustainable banks lend money only to the environmentally responsible firms.

Banks can also contribute to sustainability by making green investments, which include green savings accounts, green saving certificates, environmental direct investment and environmental investment funds (Bouma et al., 2001).

The social impacts of a banking service, in turn, are more difficult to identify. However, some examples of such could be the following (Street & Monaghan, 2001):

- i). The impact of banks on financial exclusion: the availability of banking services to individual customers, small businesses and organizations depending on geographical area, technology development and user-friendliness and cost of having a personal account could minimize financial exclusion contributing to the social dimension of sustainable development;
- ii). Convenience and quality of service for the customers depending on their needs;
- iii). Security and rights of privacy of personal data and information;
- iv). Job security and stability;
- v). Contribution to local economic development by provision of workplaces and provision of financial services to local businesses;
- vi). Provision of fair and ethical trading opportunities with sound sourcing;
- vii). Provision of services on co-operative sector such as credit unions, housing insurance, workers co-operatives.

Most importantly, operating overseas under various political regimes, banks must apply a code of conduct for all their operations that include ethical and social criteria of the investment policies when subsidizing trade or development projects (Giuseppi, 2001).

With regard to the internal activities of the banks, as they belong to the service sector, it is not very easy to connect their activities directly to the environmental problems, in comparison to manufacturing ones (Carballo-Penela & Castromán-Diz, 2015b). However, service companies also have relevant environmental impacts. According to prior research, the service sector companies negatively affect the environment by small unseen activities. However, all those activities together, such as travel activities, office buildings building materials, electricity, paper use have a huge environmental footprint (Kirk, 1995; Wolf, 2013). Being a service sector entity, banks are not an exception, affecting the environment by energy usage and waste generation (Shaumya & Arulrajah, 2017).

In general, the banking sector is relatively cleaner than other sectors in terms of visible pollution produced by the bank. Maybe because of that, banks were relatively slow responding to the new sustainability challenges (Jeucken, 2004).

However, the banking sector activities have an impact on the environment by using important amounts of paper, energy for transportation of their employees, employee commuting, heating, producing a huge amount of waste (Bouma et al., 2001), leaving a significant environmental footprint because of the size of the banking sector (Jeucken & Bouma, 2001; Jeucken, 2001).

Waste management and energy use are considered one of the biggest environmental issues faced by banks (Jeucken & Bouma, 2001). For instance, banks such as ISP Group of banks (Intesa Sanpaolo) have established objectives regarding their environmental footprint: reduce CO₂ emissions from electricity and thermal energy consumption by 13,1% in 2016, use 97% of electricity consumption from renewable sources of energy in Italy (80% globally), use 93% of all paper made from recycled paper in Italy³⁰ (89% globally) (Carè, 2018).

Only centering on the paper consumption of the bank, the focus of ISP Group on the importance of recycled paper use can change the environmental footprint for better because of the amount of paper the bank needs globally in its day-to-day operations.

Some banks such as Kommunalkredit AG includes the following indicators of measurement of its environmental performance: energy inputs (including electricity per employee and heating energy), water (liters per employee per day), paper (sheets used per employee per day, percentage of recycled paper used), traffic (business travel preferences, car-kilometers, train-kilometers and air-kilometers, contributions of the bank to total traffic), and paper waste and municipal waste (Jasch, 2001).

Re-organization of the functioning of certain bank systems may have some impact on the environment. Information and communication technology (ICT) affects the environmental situation through use of materials (e.g., metals and chemicals), energy use and waste disposal. The application of innovations may reduce the environmental impact of ICT of the bank. In addition, all banks use plastic cards for granting or denying access to the buildings, for instance. Management of production and disposal of such plastic cards may affect the environmental footprint of the bank significantly (Street & Monaghan, 2001).

With regard to the internal bank impacts on the social dimension of sustainable development, we could mention some aspects such as (Street & Monaghan, 2001): job security (downsizing because some banks close the branches, but creating new jobs in internet banking services, for instance), working conditions (including gender roles, business hours, working environment, especially, in the case of teleworking), to mention just a few.

³⁰ Some banks, such as the Co-operative Bank NCBS, in the project of their environmental footprint reduction analyzed some aspects that have an impact on environment. Among other factors, such as energy use and transportation, the bank identified the construction, maintenance and location of the bank as the potential influencers on environment: the materials used for construction of the building, the land occupied by the bank and its impact of its heating system were considered important factors affecting environment by the bank (Street & Monaghan, 2001).

Considering that banks are no different to other organizations in terms of employee importance in policy application and practicing, employees are a key unit when contributing to the improvement of environmental performance of the bank, and human resource management plays a key role in improving their sustainability.

However, studies regarding employee role in sustainable banking are scarce. Despite of the fact that the concepts of green banking and sustainable banking are very popular these days, prior literature fails to provide enough research on the topic of sustainable banking and the role of employee green behaviors in overall greening and minimization of the environmental footprint of the banks.

1.6. Banking sector of Kazakhstan and Ecuador

1.6.1. General overview of the countries

Most of the studies in the area of organizational greening and pro-environmental behaviors are centered on developed countries such as France (Elgaaied, 2012; Paillé et al., 2017), Germany, Italy, Portugal, United Kingdom (Lévy-Leboyer, Bonnes, Chase, Ferreira-Marques, & Pawlik, 1996), Great Britain, Sweden, Germany and the United States (Haddock-Millar, Sanyal, & Müller-Camen, 2016), United States (Kang, Grable, Hustvedt, & Ahn, 2017), Chile and United States (Cordano, Welcomer, Scherer, Pradenas, & Parada, 2010), Canada (Boiral et al., 2018), United States and Canada (Robertson & Barling, 2013). In the current research we are interested in countries with differences in the development level and culture in comparison with the countries studied in prior literature that may add knowledge to the field.

According to “World Economic Situation and Prospects” (2014), the countries are classified into developed, developing and economies in transition with respect to the conditions of the country economy threshold.

The socioeconomic context and environmental situation are different in developed and developing countries.

The developed countries are certainly more concerned about the environmental situation. It can be seen from the governmental level as well as from overall societal habits and behaviors. For instance, the environmental problems were firstly fully addressed and the concept of sustainable development was clarified by the European Commission (Brundtland report). Also, the majority of important organizations and programs regarding environmental conservation are based in developed countries. There are countless examples such as Greenpeace (founded in Canada), The Nature Conservancy (founded in United States), Friends of the Earth International (Netherlands), United States Environmental Protection Agency, United Nations Environment Programme, Conservation International (United States), Ocean Conservancy (United States), Earth Island Institute (United States), Defenders of Wildlife (United States).

Logically, the environmental awareness of society must be higher in those countries also. The great example would be habits of the members of society. If we

take the trash recycling as an example, in some countries (for instance, in Kazakhstan and Russia) the recycling containers for plastic, cans, bottles and paper were installed in 2017 only. In Astana (the capital of Kazakhstan³¹) the main promotor of such a decision was Expo2017 – the international exposition on renewable energy. Before that Astana citizens could only recycle paper taking it to the special facility in the outskirts of the city and exchanging it for monetary incentives.

With this in mind, the study on determinants of pro-environmental behavior would be interesting in non-studied contexts.

Table 1.3. Some development indicators by country groups

	Gross National Income per capita (2017)	Total Ecological Footprint ³² (gha per capita) (2017)	HDI average (2016)	Life expectancy at birth (years) (2017)	Mean years of schooling (2017)
World	10,371	2.8	0.728	72.2	8.4
Developed countries	41,614.2	5.7	0.907	81.7	12.0
Developing countries	5,093.5	2.6	0.681	70.7	7.3
Least developed countries	1,189.3	1.3	0.496	63.1	4.4

Source: "Global Footprint Network", "Human Development Reports", "The World Bank", assessed on 26.03.2019).

Table 1.3 shows differences in some indicators among developed, developing and least developed countries. As we can see, as the level of development increases, so does the human development index, life expectancy at birth and mean years of schooling. Unfortunately, the level of the ecological footprint is also increasing with the development level: the developed countries have a bigger environmental footprint in comparison with developing countries. In turn, the developing countries have a bigger environmental footprint in comparison with least developed countries.

The studied countries Kazakhstan and Ecuador are developing economies ("The World Bank," n.d.).

³¹ On a governmental level, there some agreements regarding emissions and environmental situation, of course. However, if we consider to take energy production, the alternative sources of energy account only for 0.2% (87.5% comes from fossil fuels) (Babagaliyeva, 2015).

³² Regarding national footprint accounts, it measures the ecological resource use and resource capacity of nations over time. It includes such components as cropland, forest land, fishing grounds, grazing land, build-up land ("Global Footprint Network," n.d.).

Figure 1.4. Map of Kazakhstan



Figure 1.5. Map of Ecuador



Source: "WHO - World Health Organization", assessed on 05.03.2019.

Both countries have almost similar indicators of population level (Table 1.4). Kazakhstan is located in the Central Asian region (Figure 1.4) having no access to the world's ocean. The population of the country is nearly 18 million citizens with GNI per capita of \$7,790 ("The World Bank," n.d.; "WHO - World Health Organization," n.d.). In the case of Ecuador, the country is located in the South American continent (Figure 1.5), and its population is nearly 16.5 million citizens with GNI per capita \$5,920 ("The World Bank," n.d.; "WHO - World Health Organization," n.d.).

Table 1.4. Statistics of Kazakhstan and Ecuador

Statistics	Kazakhstan	Ecuador
Total population (2016)	17,988,000	16,385,000
Gross national income per capita (GNI, \$) (2017)	7,970	5,920
Life expectancy at birth (years) (2017)	70	76.6
Life expectancy at birth males (years, 2016)	67	74
Life expectancy at birth females (years, 2016)	75	79
Probability of dying under five (per 1,000 live births, 2017)	10	14
Probability of dying between 15 and 60 years males (per 1 000 population, 2016)	256	142
Probability of dying between 15 and 60 years females (per 1 000 population, 2016)	108	86
Total expenditure on health per capita (Intl \$, 2014)	1,068	1,040
Total expenditure on health as % of GDP (2014)	4.4	9.2
HDI average (2016)	0.800	0.752
Mean years of schooling (2017)	11.8	8.7
Total Ecological Footprint (gha per capita) (2017)	5.8	2.0

Source: "WHO - World Health Organization" (assessed on 05.03.2019).

The gross national income level puts those two countries into the developing countries group. Although, the overall HDI of both countries is above the average index for the group of countries they are in, they are below the average index of developed countries. Both countries have high estimates when it comes to mean years of schooling, life expectancy at birth and human development index (Table 1.4). On the other hand, the life expectancy gap between males and females is smaller in Ecuador than in Kazakhstan (Table 1.4): women live a lot longer than men in the case of Kazakhstan. Even if women have higher life expectancy in Ecuador too, the difference is smaller. Regarding the environmental footprint³³, Kazakhstani estimates are much higher, than Ecuadorian ones.

With regard to the cultural features, there are some similarities and differences between Kazakhstan and Ecuador. Cultural differences between countries can be analyzed according to the Hofstede cultural classification (Hofstede & Bond, 1984). This classification includes four dimensions of culture (uncertainty avoidance, masculinity, individualism and power distance), adding two additional dimensions in more recent studies (long-term orientation and indulgence). In the current research we would mention four first dimensions for Kazakhstan and Ecuador.

Uncertainty avoidance underlines the importance of stability in the future. In other words, how any given society deals with the ambiguity or predictability of the future: the higher the index, the more the avoidance of ambiguity is (Hofstede & Bond, 1984).

With regard to masculinity, high scores show the predisposition of the country to be competition-driven, achievement- and success-defined. In turn, low masculinity scores show the importance of caring for others and quality of life, which plays a role in success: the higher is the quality of life, the more successful is the society is – liking what one does is important (Hofstede & Bond, 1984).

The individualism index addresses the degree of interdependence of the society members on each other: the self is defined by “I” (high values of the index) or by “We” (low values of the index). In the first case, the people are only taking care of their direct family members and themselves. In the second case, the group people belong to is important (Hofstede & Bond, 1984).

Being divided into high power distance and low power distance, power distance index estimates deal with equality: they express the attitude of the culture towards the inequalities amongst us (Hofstede & Bond, 1984). This dimension measures how the power is distributed among society members, such as the quantity of elite and rich people, level of obedience of the children in families, hierarchical structure of the companies and organizations, to mention just a few (“Danish Kazakh Society,” n.d.). For some countries, high power distance indicator means the centralization of power and importance of status symbols that are distributed in accordance with individual’s

³³ According to the Global Carbon Atlas report of 2017, Kazakhstan is on 22nd place with regard to carbon emissions (239 MtCO₂), while Ecuador with 39 MtCO₂ is on 69th place (Boden, Andres, & Marland, 2017; BP, 2018; UNFCCC, 2018). In the case of Kazakhstan, such high emission indicators may occur because of the Baikonur spaceport activity, which is located in the southern region of the country. In addition, the low temperatures in winter require high levels of heating, which is mainly produced by burning high-ash coal with old type electric equipment (Babagaliyeva, 2015).

place in society (“Hofstede Insights,” n.d.). High power distance index cultures tend to accept huge discrepancies between less and more powerful members of society, accepting a place of the individual in society and making power inequalities a fact of life. The leader’s assignments are considered orders and almost never questioned since the authority of the leader is absolute in the autocratic hierarchy of the cultures with high power distance index (“Hofstede Insights,” n.d.).

For Kazakhstan the score on uncertainty avoidance is 58 (Karibayeva & Kunanbayeva, 2018). Social conservatism might be prevailing in the Kazakhstani realm too, being accompanied by religion and traditions. People in Kazakhstan like stability, structure and security (“Danish Kazakh Society,” n.d.). The score of 67 for Ecuador means that as a nation they make use of several mechanisms seeking to avoid ambiguity. As “Hofstede Insights,” (n.d.) states: “Emotions are openly expressed; legislation is extensive and detailed; social conservatism prevails. Rules are not necessarily followed. [...] Religion and superstition have large followings, the tradition of each group is very respected by their members, though they may not necessarily respect another group’s tradition.”

In the case of the masculinity dimension, having the score of 50, Kazakhstan is described as a society of a mix of both masculine and feminine culture. Male and female equality in business positions makes it feminine and the importance of power makes it masculine. The failure to “be someone” is not permitted and social pressure in this case exists (“Danish Kazakh Society,” n.d.). Having a score of 63, Ecuador is clearly a masculine society being highly success oriented. As “Hofstede Insights,” (n.d.) states: “People seek membership in groups which give them status and rewards linked to performance, but they often sacrifice leisure for work. It is difficult to “let go” of work and often this only happens through binge drinking, a common practice among the working classes.”

Regarding individualism, the Kazakhstani society is collectivistic (score of 30). The relations with family and colleagues at work are really strong, the achievement of the common goals prevails. Loyalty is a key element (“Danish Kazakh Society,” n.d.).

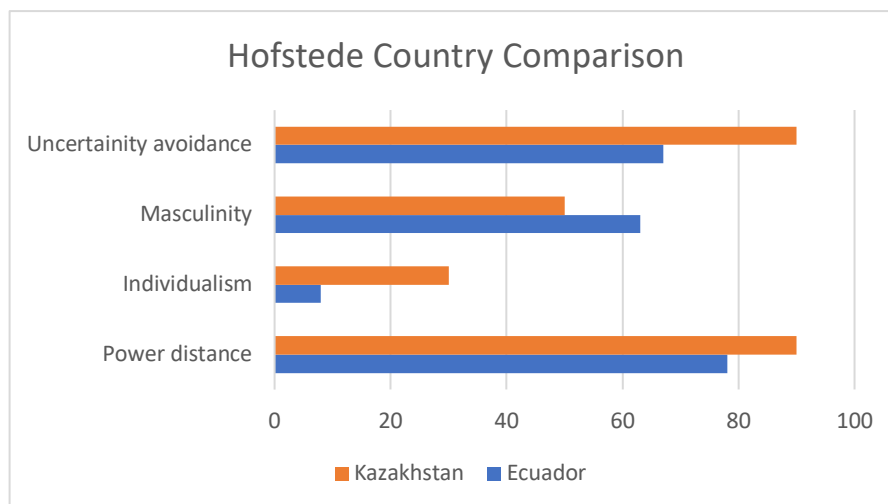
With a score of 8 (the lowest individualist score) Ecuador is placed in the collectivist society group as well, being clearly a collectivistic society. As “Hofstede Insights,” (n.d.) states: “[...] belonging to an in-group is very important. Conflict is avoided, in order to maintain group harmony and to save face. Struggles for power among different political factions, though frequent, seldom have become very violent. Relationships are prioritized over tasks and groups can quickly enlarge their numbers. This may even result in a task being completed quickly through cooperative effort, or it may be abandoned (if that is the opinion of the group).”

With respect to power distance, the Kazakhstani score of 90 is very high. The estimate means the extent to which the less powerful members of the society accept that power is unevenly distributed. The high score demonstrates here that the power holders are very distant in society. The score of 78 puts Ecuador in the group where “a society believes that inequalities amongst people are simply a fact of life. This

inequality is accepted in all layers of society, and often linked to race and social class.” (“Hofstede Insights,” n.d.).

All the scores of Kazakhstan and Ecuador can be seen in the Figure 1.4.

Figure 1.4. Hofstede country comparison



Source: Ecuadorian data is taken from “Hofstede Insights,” (n.d.) on 05.03.2019 and Kazakhstani data is based on Mukazhanova (2012).

With respect to the sustainable development information, the sources for Ecuador and Kazakhstan do not provide a solid framework for the sustainable development principles applied to the organizations in those two countries. However, we have some information on general CSR principles, where the Kazakhstani picture is the following. Only 53% of private companies claimed they had a CSR policy (21% state companies, 71% international ones), showing that there is a way to go (Potluri, Yespayeva, & Kunev, 2010). It could be said that those companies might be playing on the international arena and are forced to apply CSR principles in order to be able to make business with international companies. In the case of Kazakhstan, the governmental intervention in the promotion of CSR is, no doubt, very important; however, public awareness (in environmentally friendly product choices, for instance) should be promoted and citizens should be educated in terms of CSR importance.

In turn, in Latin America it is believed that CSR principles are established in order to comply with regulations and international standards of environmental and social impacts, to better its image and be able to have access to international markets (Núñez, 2003), which is mainly boosted by international alliances and joint-ventures. Ecuador was able to start to engage in company greening and social responsibility when the American dollar was adopted as the national currency in the beginning of this century. As a result, all the international sustainability principles must be applied to the companies that are interested in the international business arena. We could say that the country is in the transition stage when it comes to CSR principles.

1.6.2. Banking sector

With regard to the banking system, Kazakhstan is diverging from the Soviet banking system history, where banks played a passive role, being a passive instrument of financial control of a productive sphere. However, after gaining independence Kazakhstan has modernized and reformed its banking system becoming a front runner of the CIS countries regarding its banking system (Barisitz, 2007).

Table 1.5. Banking sector of Kazakhstan and Ecuador. The number of banks

Kazakhstan	Total	28
	With foreign participation	14
	Subsidiary banks	12
	100% owned by the state	1
Ecuador	Total	30
	Private	23
	Public	3
	Mutual	4

Source: PNUMA - CAF (2016); The National Bank of the Republic of Kazakhstan (2019).

In December of 1990 several important banks were founded, some of them are functioning now: Kazakhstan Ulttyk Banki (National Bank of Kazakhstan, NBK) Narodny/Halykbank, Turanbank, Agroprombank, Kredsotsbank, Alembank. After the collapse of the USSR, up to year 2000, the banking system received more freedom to do business and they did not depend on the approval of the center of the country (Barisitz, 2007). Trust in the banking system in Kazakhstan after the USSR collapsed has grown (International Monetary Fund, 2002).

Since 2000, the banking sector of Kazakhstan has entered a big economic expansion driven by, basically, high prices of oil and gas, and precious metals, which is the base of the country's economy (Barisitz, 2007). As stated for mid-2016, there were 35 banks operating in Kazakhstan, of which 16 banks are with foreign participation, including 13 subsidiary banks ("Ministry of Commerce, People's Republic of China," n.d.). Since then, the quantity of banks is diminishing in Kazakhstan, currently represented by 28 banks (Table 1.5), including 1 bank 100% owned by the state, 14 banks with foreign participation and 12 subsidiary banks (The National Bank of the Republic of Kazakhstan, 2019).

The sector is employing nearly 50,000 employees ("Ministry of National Economy of the Republic of Kazakhstan. Committee on Statistics," n.d.). The overall share of assets of the banking sector represents 42.9% of the country's GDP (The National Bank of the Republic of Kazakhstan, 2019).

The main obstacles for greening expected for the banking sector of Kazakhstan might be legislation inconsistencies, the country's growing economy and the emissions reduction targets imbalances and lack of high quality experts in the field (Babagaliyeva, 2015).

In the case of Ecuador, the overall picture of the banking sector is the following. In 1999 there was a big crisis in the system (Martínez, García, Montoya, & Gómez, 2017) that led to the “bank holiday” – all banks closed for five days. The crisis resulted in a very slow recovery of the sector (Cibils, Giugale, & Somensatto, 2008) that led to the closure of 16 banks, including the largest two and citizens lost their savings. The number of all financial intermediaries diminished dramatically (Cibils et al., 2008). Because of that, in 2000, Ecuador adopted the United States dollar as a national currency hoping to rectify the situation. However, even if today the banking system is more stabilized, planning future agenda (Jones & Alexander, 2017), the overall financial system of Ecuador accounts for 30% of GDP in 2006 (Cibils et al., 2008).

Currently, the total number of banks (Table 1.7) in Ecuador is 30 (23 private banks, 3 public banks, 4 mutual banks) with nearly 30 thousand employees (PNUMA - CAF, 2016).

The greening of the banking sector is very important. But only 41% of Ecuadorian banks have implemented the system of socio-environmental management³⁴ (PNUMA - CAF, 2016). According to the calculations of the input-output matrix for 2006, the financial intermediation sector of Ecuador contributes to the emissions of the country by 0.6%. It is a relatively high indicator. The production of paper and metal products, social services and healthcare, bakery products including bread production³⁵ make the same contributions to emissions (Hermosa, 2018).

The biggest obstacles for Ecuadorian banks to promote the integration of environmental and social criteria are lack of understanding about the adverse environmental impacts on the performance of clients, and, therefore, in the financial institution itself (76%), and the lack of training and knowledge of employees (59%) (PNUMA - CAF, 2016).

³⁴ The percentage obtained is from 58% of Ecuadorian banks who participated in the creation of the report.

³⁵ The emissions according to the sector show the following data: the primary sector contributes to the total emissions by 5.14%, the manufacturing sector – by 63.37%, and the service sector (including financial intermediaries) – by 31.42%.



2. HUMAN RESOURCE MANAGEMENT

Considering all the discussion about the incorporation of the concept of sustainable development in the business sphere, we should pay attention to where the business actually starts – human resources (HR).

Since human resource management forms part of overall company management (Schaltegger et al., 2003), it possesses certain power for the achievement of company goals and objectives. Hence, the importance of HR function could be observed from two closely related points: i). as a part of the organization that manages human resources in the company, and ii). as a part of management power, the outcomes of which affect the stakeholders of the company.

2.1. The concept of human resources and human resource management

Firm resources could be described as all the assets – tangible or intangible – that are available to the company, including competencies, information, skills and knowledge (Barney, 1991; Kamoche, 1996). As Kamoche defines, resources could be considered production inputs and capabilities – as the possibilities that those resources open to the firm (Kamoche, 1996).

There are different types of resources available to the company. Mello offers the following division: financial (equity, securities, accounts), physical (plant, equipment, raw materials), market (branding, customer loyalty, product line, distribution networks, patents), operational (management practices, structure of work, technology) and human (education, knowledge, skills, competencies, work habits and motivation, personal relationships) (Mello, 2006).

Researchers do not agree on one best definition of human resources (some definitions are shown in Table 2.1). Some of them note that “human resource refers to the accumulated stock of knowledge, skills, and abilities that the individuals possess, which the firm has built up over time into an identifiable expertise” (Kamoche, 1996, p. 216). However, many researchers claim that human resources are employees of the company, while their skills and capabilities are human capital³⁶ (Armstrong, 2003; Benhabib & Spiegel, 2005). From this perspective, we could define human resources as people or individuals working in a particular organization, which could also be

³⁶ Human capital could be developed by investing in it by “schooling, on-the-job training, medical care, vitamin consumption, acquiring information about the economic system” (Becker, 1962, p. 9), “education, health, and internal migration to take advantage of better job opportunities” (Schultz, 1961, p. 1).

called personnel, employees or associates depending on the company preferences and policies (Gomez-Mejia, Balkin, & Cardy, 2004).

Table 2.1. Definition of Human Resources

SOURCE	DEFINITION
Arthur, 2006, p. 4	“a concern for making the most of human resources potential and a commitment to management by anticipation”
Barney & Wright, 1998, p. 31	“firm’s most important asset”
Holbeche, 2012, p. 7	“is the visible face of an employer’s obligations towards employees”
Schuler & Jackson, 2006, p. 13	“human resources are all of the people who currently contribute to doing the work of the organization, as well as those people who potentially could contribute in the future, and those who have contributed in the recent past”
Sheer, 2017, p. 6	employees (“employees, regarded as human resources”)
Ulrich, 1998, p. 125-126	“HR should be defined not by what it does but by what it delivers [...] to shareholders for creating economic value, to customers for creating product or service value, and to employees for creating workplace value”
Wright, McMahan, & McWilliams, 1994, p. 304	Human resources could be defined “as the pool of human capital under the firm’s control in a direct employment relationship”

Source: author’s own elaboration.

In order to achieve some goals, it is not enough to only have a resource, but also effectively manage it. Human resource management could be defined as a broad set of tools and strategies to help the management of the firm to resolve the conflict between management and employees, which is present due to the growing importance of human resources of the companies (Kaufman, 2010). Among the duties of the HR function of a company are the recognition of the impact of the operating environment, the recognition of the competition and the dynamics of the labor market, the integration with the corporate strategy, among others.

The Blackwell Encyclopedia of Management claims that human resource management or the human resource function works to “develop a performance management and compensation systems that align employees with organizational goals, and to assist in the development and retention of a diverse workforce to meet current and future organizational requirements” (Cooper, Argyris, & Starbuck, 2005). Moreover, it states that there are specific areas of responsibilities of the HRM department, which includes job design, recruitment and selection processes, compensation plan development, employee development and training, compliance with legal and governmental guidelines, among others (Cooper et al., 2005).

As we can see in some examples in Table 2.2, the concept of HRM is derived from managing individuals working in the company according to their specifications in order to achieve organizational goals. Various ways of managing human resources are available in the HRM literature.

Table 2.2. Definitions of Human Resource Management

SOURCE	DEFINITION
Armstrong, 2003, p. 3	“Human resource management (HRM) is a strategic and coherent approach to the management of an organization’s most valued assets: the people working there who individually and collectively contribute to the achievement of its objectives”
Boxall & Purcell, 2000, p. 184	“HRM includes anything and everything associated with the management of employment relationships in the firm. We do not associate HRM solely with a high-commitment model of labour management or with any particular ideology or style of management”
Miner & Crane, 1995, p. 5	“Human resource management is the process of developing, applying, and evaluating policies, procedures, methods, and programs relating to the individual in the organization. It is concerned, accordingly, with the human resources of an organization, in contrast to its material or financial resources.”
Mondy & Mondy, 2010, p. 4	“Human resource management (HRM) is the utilization of individuals to achieve organizational objectives”
Sheer, 2017, p. 6	“HR management generally refers to policies, practices, and systems to manage ongoing processes of hiring and developing employees, influencing their attitudes and behaviors, and enhancing their performances.”
Storey, 1995, p. 5	“Human resource management is a distinctive approach to employment management which seeks to achieve competitive advantage through the strategic deployment of a highly committed and capable workforce, using an integrated array of cultural, structural and personnel techniques”

Source: author’s own elaboration.

According to the research of Truss and colleagues (Truss, Gratton, Hope-Hailey, McGovern, & Stiles, 1997), there are two strategic models of managing human resources – the hard one and the soft one.

The hard model focuses on managing human resources based on tight control, treating employees according to the principle of McGregor’s Theory X³⁷ focusing on resources. The soft model treats employees based on the view of Theory Y³⁸ and commitment focusing on the human part.

McGregor argued about the theory claiming that Theory X workers should be managed through tight control and by application of only X Theory aspects (‘sticks’ method), while Theory Y states that people should be managed accordingly (‘carrots’ method) (McGregor, 1960).

Both models of HR have completely different aspects and could be defined by completely different notions. The soft model could be associated with flexibility and adaptability while the hard model underlines qualitative and business-strategic aspects

³⁷ People are lazy and are not able to work without application of punishments and high levels of control (McGregor, 1960).

³⁸ People are highly motivated, self-controlled and can show high levels of commitment to the organization without additional control from the management. The management should be motivating those kind of workers by training and increase of qualification (McGregor, 1960).

(Truss et al., 1997). Under those circumstances, there is no surprise that the models are conflicting in opposite sets of assumptions as to what the best strategic way is.

The function and processes within the organization could be fully explained and represented by neither the soft model nor the hard one (Storey, 1992). The reason is the following: the companies apply the combination of the models in their everyday business management practices (Truss et al., 1997) in order to achieve the best results. This explains the managerial complexity of human resources when studying the difference between models.

The mixing of the theories is considered to be the best approach because of the significant differences between organizations: difference in organizational strategies, company's operating environment, policies, organizational culture, availability of resources, strategic objectives and, of course, not forgetting the human factor.

2.1.1. Evolvement of the human resource management (HRM) concept

For more than 200 years employees were controlled and guided by the craft system, which was the community of craftsman, who controlled all the production process, and a couple of apprentices with journeymen. That small community was doing all the production process and usually was based in a household (Anthony, Kacmar, & Perrewe, 1999).

As development continued and product demand increased significantly, the craft system could not satisfy the growing demand and was replaced by scientific management principles ("one best way") brought by the industrial revolution – the age of machines, which also rocketed the number of workers operating those machines (Anthony et al., 1999).

Scientific management or Taylorism makes reference to the techniques and concepts developed by Frederick Taylor (Warner, 1994) in an attempt to build employee commitment and flexibility. Taylorism contributed to the further development of human resources and its management. Scientific management is based on production control and incentive pay including time management (Niepce & Molleman, 1998). Also, Taylor was the first to apply a specialization of tasks: selecting an optimum load for each worker by assignation of fully prescribed tasks (Guest, 1990), opening the path to industrial psychology (Warner, 1994). Even though his studies were heavily criticized because of de-humanizing people and considering them as machines performing tasks, Frederick Taylor is remembered as the father of scientific management and modern management systems (Warner, 1994).

The Marxian followers see the HRM function in the organization differently. In the Marxian theory of organizations, employees would feel oppressed and rise against their oppressors. However, there is not much theorizing on HRM in the Marxian following, even if its indirect effect on employment relationships is undeniable – conflict management in modern organizations is a must (Watson, 2007).

By the emergence of the concept of HRM in 1900s as we know it now, various theoretical approaches were trying to explain organizations and the role of the HRM in those organizations. The Weberian approach claimed that organization is highly bureaucratic and full of conflict of interests and power with rivalries. Weber thought that rationality was a synonym of efficiency, so organizations should imply a similar system to become equal in processes and function equally (Watson, 2007). HRM function in the Weberian faction is using measures to standardize organizational functions, such as performance indicators or metrics. However, those indicators may be discouraging in terms of a minimum standards set: employees who reached those minimum standards at work may not want to work more since the asked performance is there (Watson, 2007).

Later in 1920s-1930s Elton Mayo performed Hawthorne studies on illumination effects (Sheer, 2017) focusing on the management of human resources rather than only on the assets of the company. By that time human resources were considered a company resource among other resources and careful management was introduced – HRM – in order to organize its adequate use (Kaufman, 2007).

World War II (WWII) introduced some changes in the development of HRM. Before WWII, unions were the source of innovative power and strategic change of the organization bringing completely new management of human resources. Even if the International Industrial Relations Association continued with its European conferences on a regular basis, the meeting agenda was global economic planning rather than plant-level work of the personnel. After the beginning of the war the association declined (Kaufman, 2007). Needless to say, that after WWII Europe was devastated, focusing on economic survival of the countries rather than development of new HRM practices leading to the situation where human resource departments lost their professional status in Europe, which is a completely different picture of what happened, for instance, in Japan³⁹.

In the field of research, the situation was more or less the same in the 1940s. Starting from the business area, we could say that, for instance, Germany had no personnel management since labor relations were controlled by law, so no HRM department was in need at that time.

Shifting to the educational area (universities and research), investigation was also very scarce on the topic, but not only in Europe. The United States experienced the same situation, the HRM profession being the least popular professional path to graduate with. The popularity of the topic grew later with the introduction of industrial relations programs (Kaufman, 2007), leading to a growing interest in the field that allowed research on the topic to expand also. Organizational behavior and development scholars found out that careful HRM could result in better productivity and performance if treating people as people rather than organizational input, which

³⁹ Japan after WWII focused on the giant national and multinational firm development in the primary sector and SMEs in secondary sector, applying different methods of HRM in both sectors focusing on careful personnel management where HRM department was almost most powerful of the organization, overperforming even USA by that time. That allowed Japan to experience a “productivity miracle” in 1980s (Kaufman, 2007).

put HRM in line with other organizational functions such as finance, marketing and accounting and increasing importance. Behaviorists of that time were Herzberg, McGregor, Porter, Maslow and Argyris (Kaufman, 2007).

Later on, behavioral science influenced companies, bringing notions of organizational behavior, organizational development and human resource management – in other words, applying notions of behaviorism, political science, sociology and psychology to the ways of doing and managing business (Anthony et al., 1999). Back then, some corporate workers understood that employees needed more than just a salary and job security. Moreover, management practices of the industrialization period and nowadays were compared, it could be seen that some sustainable systems were applied, which could cover the social aspect of sustainable development, including the coverage of the social needs of employees (Ehnert, 2009d).

2.1.2. HR practices, HR policies and systems of HR practices

Human resource management needs some means to influence employees' behaviors in order to achieve organizational objectives. HR practices are these means: they are “actual programs, processes and techniques that actually get operationalized in the unit” (Wright & Boswell, 2002, p. 263).

HR practices are “the actual, functioning, observable activities” (Boselie, Dietz, & Boon, 2005, p. 74) integrated and allocated to support a firm's competitive strategy and contributing to the strategy development (Jackson, Schuler, & Jiang, 2014; Wright & Snell, 1991). HR practices are those elements integrated into HR systems and HR strategy. For instance, compensation practices are one of the elements to compose a motivational strategy (Wright & Snell, 1991). HRM can be implemented in terms of “carefully designed combinations of such practices geared towards improving organizational effectiveness and hence better performance outcomes” (Boselie et al., 2005, p. 67).

There is no fixed list of HR practices. Some researchers have identified 26 possible HR practices, which contain the top four: training and development, contingent pay and rewards, performance management and appraisal, and careful recruitment and selection (Paauwe & Boselie, 2005). The HR practices vary across the organizations because of the differences in beliefs, values of top management, differences in organizational business strategy and critical success factors, organizational structure and organizational culture, technology, professional and business expertise (Armstrong, 2003).

The HR practices mentioned above are very different. It is believed that there is no clear theory about how to classify them – whether a particular practice is obligatory or optional, motivator or hygiene⁴⁰ (Roehling et al., 2005).

⁴⁰ For instance, when taking into account the bonus payments – it could be considered as a motivator, on the other hand, it could be a control system, which evaluates the work done.

HR practices in research have been analyzed as determinants of different behavioral outcomes such as motivation and workforce skills and as influencers on firm performance (Wright, McCormick, Sherman, & McMahan, 1999).

HR policies are “the organization’s stated intentions regarding its various “employee management activities”” (Boselie et al., 2005, p. 74), i.e. “the kind of HR programs, processes, and techniques that should be carried out in the organization” (Wright & Boswell, 2002, p. 263). HR policies are in the middle of HR practices and HR systems and they try to coordinate two or more practices to achieve organizational goals, such as job security or employee commitment (Martín-Alcázar, Romero-Fernández, & Sánchez-Gardey, 2005). For instance, HR employment and development policies regulate the number of employees in the organization, the number of HR specialists needed, the ration of full-time professional staff versus part-time employees provided by external agencies, which, in turn, shape HR recruitment practices (Armstrong, 2003).

As the policies of the firm are the guidelines that include organizational values and philosophies (Armstrong, 2003), HR policies help organizations to develop HR strategies⁴¹. The HR strategy could consist of different carefully selected policies and procedures indicating concrete practices and ways to achieve strategic HR goals (Boselie et al., 2005).

The implementation of HR policies and practices is in the hands of line managers (Armstrong, 2003). In other words, HR managers train the line managers and explain the policy context to them. Line managers, in turn, promote the implementation of that particular policy (or policies) in the daily life of an organization.

The HR systems are usually formed by a collection of interconnected practices (Boselie et al., 2005) that are combined to achieve organizational goals (Armstrong, 2003; Wright & Snell, 1991). Elements of HRM system include organizational philosophies, policies, practices and processes, that produce a certain outcome – usually, organizational performance (Wright & Snell, 1991). HRM systems are incomprehensible without considering all the previously mentioned elements and their interrelations (Jackson et al., 2014). A group of HR practices that are interconnected in the organization could form particular HR systems. There might be various systems working together in one organization (Boselie et al., 2005).

HR systems must fit together with the firm strategy in order to reach organizational objectives. As a result, the HR practices and HR policies composing the HR system must be consistent (Wright & Boswell, 2002), being a driver of individual and organizational performance (Lepak, Liao, Chung, & Harden, 2006). If considering one particular consistent system where the practices are coherent with each other, the sum of individual effects of each practice in that system is less than the effect of the system itself on organizational performance (Delery, 1998).

⁴¹ An HR policy is not the same as an HR procedure – the first one is a general guidance and the second is a concrete action to be taken (Armstrong, 2003).

HRM systems are a very changing substance. HRM systems change according to stakeholder preference. Shareholders may influence the management payment plan, customers may influence the service-line manager behavior and training, society may influence the work-life balance strategy of the organization, to mention just a few (Jackson et al., 2014). Customers, being one of the stakeholders of the organization, may affect the production processes, for instance, enhancing more environmentally friendly production by demanding eco products and simply not buying environmentally harmful ones.

Hence, HR practices are actions and activities actually working in a given time in the organization. HR policies, in turn, are the program focused on choices of employee-oriented policies. And, finally, HR systems “operate at an even higher level of analysis and reflects a program of multiple HR policies that are espoused to be internally consistent and reinforcing to achieve some overarching results” (Lepak et al., 2006, p. 221).

2.1.3. Strategic human resource management (SHRM)

2.1.3.1. The concept of SHRM

The strategy of the company defines organizational goals and the route, which the company takes in order to achieve its goals regarding the environment where the company operates (Armstrong, 2003). It could be described as “a way of doing something [...] a plan of action” (Anthony et al., 1999, p. 9). Since strategy could be described as a plan of the company for upcoming achievements, the orientation is always towards the future (Armstrong, 2003).

The strategy has its roots deep in military literature (Anthony et al., 1999), and in Greek it means “the art of commanding the army” (Schaltegger et al., 2003, p. 172). However, it is successfully adapted in business in order to achieve a competitive advantage (Salaman, Storey, & Billsberry, 2005).

In the business world we could define strategy as “a formulation of organizational missions, goals and objectives, as well as action plans for achievement that explicitly recognize the competition and the impact of outside environmental forces” (Anthony et al., 1999, p. 10). In particular, company strategy involves a plan of action in the case of entrance, position sustaining and conditions of exit (Schaltegger et al., 2003). The strategy formation depends on two decisions regarding which strategy to implement and what process of implementation to choose (Boxall, 1996).

Human resource strategy can be defined as the organizational guide to manage the human factor implementing cohesion to the set of HR practices through which said guide would be implemented (Boselie et al., 2005).

The careful implementation of HR strategy and planning processes into an organization’s daily life might result in success or failure. The right selection of strategy depends on organizational goals. Since human resources might play a key role in organizational success, selecting a harmonious HR strategy that reflects a general

strategic path of the organization is an important and complex issue that should be addressed carefully and considered individually depending on the needs, mission and vision of the organization.

Strategic human resource management could be defined as strategic decisions involving management of human resources (Dyer, 1984), representing a framework in which employees are managed, including all the process starting from attracting a potential employee and ending with retirement (Salaman et al., 2005). SHRM could be divided into organizational SHRM, including allocation, compensation or/and utilization of available human resources; and functional SHRM including the management of the personnel unit, its aims and activities (Dyer, 1984).

Strategic HRM occurs when HRM activities meet business needs (Schuler & Jackson, 2005). However, SHRM is considered to be a complex phenomenon, to which it is impossible to give a precise definition, because it includes “prescriptions, models, theories and critiques” (Salaman et al., 2005, p. 3). Well-developed strategic HRM is considered to be a strategic partner of the company (Losey, Meisinger, & Ulrich, 2005).

The origins of the strategic HRM approach are traced back to the beginning of the twentieth century. It is believed that the concept originated between 1915 and 1925 as a new paradigm (Ehnert, 2009d). In order to be successful, companies should integrate their HR strategies – vertically with business strategy and horizontally with each other (Armstrong, 2003), which leads to the logical conclusion that HR strategies are working as a single organism with strategic objectives of the company while SHRM is helping the company to achieve its goals through people. So, the strategic HRM term is used by HR professionals to underline their belief in the contribution of HRM to business performance⁴² (Jackson et al., 2014). Hence, the main idea of SHRM is the assumption that there is a significant positive link between HRM and organizational performance (Martín-Alcázar et al., 2005), when HR strategy goes in line with company strategy in general.

The development of effective and efficient HRM strategy is a complex task⁴³. According to Mello: “Developing an effective strategy to manage an organization’s human assets requires considering employees as investments. Such an approach helps to ensure that HR practices and principles are clearly in sync with the organization’s overall strategy, forces the organization to invest in its best opportunities, and ensures

⁴² The demonstration of SHRM effectiveness on organizational performance could be done by measuring monetary criteria or/and satisfying multiple organizational stakeholders (Schuler & Jackson, 2005). In other words, improvement of productivity levels, profitability and effectiveness of organizational resource use could be parameters for the demonstration of SHRM effectiveness.

⁴³ One of the market challenges for SHRM could be adopting new technologies. The strategic advantages of such a decision could be the positive impact on productivity, outputs, delivery timing, decreasing production costs in the long-run, new market opportunities and current outdated technology, which could make the firm losing its competitiveness (Mello, 2006). However, such a decision might imply additional strategic issues of HRM such as necessary expansion and contraction of the workforce, training needed for optimal usage of new technology; additional costs of solving all those issues, adding effective change management and possible impacts on work group dynamics (Mello, 2006). Emerging possibilities of new technology may include telecommuting, electronic HR (provision of employee self-services such as employee benefits, recruiting, scheduling, etc.), employee monitoring (Mello, 2006). The primary concern of SHRM is the careful integration of HR function activities into strategic planning process of the company (Cooper, Argyris, & Starbuck, 2005).

that performance standards are met. [...] This, in turn, has the goal of gaining more commitment from employees and encouraging them to adopt long-term focus toward the organization.” (Mello, 2006, p. 13).

Moreover, the firm’s managers may stick to the three different SHRM models in order to be able to achieve the best strategic approach. Those models are high performance management which includes continuous learning of employees, incentive pay system and rigorous selection and recruitment among other practices; high commitment management, which involves self-regulated behavioral patterns at work, development of high levels of trust and reduction of hierarchies among other practices; and high involvement management, which means treating employees as partners, respecting their interests and including job rotation practices (Armstrong, 2003).

2.1.3.2. Lining up human resources and firm strategy

Implementing human resource practices in line with firm strategy is a complex and very complicated process that can have some major difficulties that the company would have to face. Since then the question raises, why it is so important to develop HRM practices and the business strategy homogeneously and harmoniously?

First, integrating human resource practices into the firm strategy might provide the wider range of solutions to complicated organizational problems. Second, it is claimed that the company resources – financial, technological and human – should be taken into consideration when establishing objectives and assessing implementation possibilities. Third, the organizations should consider the individuals who comprise and implement policies and integrate them into the organization. And, finally, the integration process underlines the importance of HR as a major concern of organizational competence and competitive advantage (MacMillan & Schuler, 1985).

The implementation of strategic HRM could be carried out in the areas of staffing, training and development, performance management and feedback, compensation, labor relations of the company and employee separation (Mello, 2006). It could be said that SHRM is about: i). vertical integration, including the understanding of organizational context and the organization itself; ii). horizontal integration, including the creation of HRM systems; iii). demonstrating effectiveness including effects caused by HRM systems on organizational performance; iv). partnership including team work of HR professionals with line managers, non-management employees and company workers as a whole (Schuler & Jackson, 2005).

Focusing on each point, understanding organizational context, historical background of HRM functions should be mentioned. For instance, in the USA laws and regulations shape the function of human resource management against unfair and unsafe employment labor practices. However, in the past the main functionality of the HR was monitoring the competitors (Schuler & Jackson, 2005). On the other hand, the European picture was different. If we take Spain, for instance, before Franco it was underlined with passive strategic HR function responding to the existing problems rather than pro-active strategy predicting possible issues. During some years of

dictatorship, 1958-1973, the basic SHRM function was wage determination and the use of temporary employment. Following the crisis of 1970s when the reduction of labor conflict was the priority, the recovery period of 1980s followed when SHRM regained the importance of its main activities (Gonzalez-Rendon, Alcaide-Castro, & Florez-Saborido, 2005).

In addition to the historical and cultural background of a company, the organizational approaches for effective usage of its HR function depend on many factors including the company operating environment, its size, lifecycle, job design, economic and political conditions, where SHRM continues scanning firm-operating environment, in order to be able to perfectly adapt the organization in accordance with all those issues (Schuler & Jackson, 2005).

According to the literature review, lining up HRM models with a firm's strategy could be done in four different common ways (Lengnick-Hall & Lengnick-Hall, 1988). The first way is about focusing on the strategy implementation rather than formulation, seeing the human resources as a means rather than ends-to gain strategic organizational goals. Human resources are considered as strategic direction determiners only when the approach applied is unidirectional. This limits the potential contribution of human resources because the unidirectional approach is not interactive: it goes from human resource problems to strategic solutions (Lengnick-Hall & Lengnick-Hall, 1988).

The next way describes adapting human resources of the firm to the strategy rather than the strategy to people, which means that personnel is considered to be more flexible and adapt faster to the changing strategy⁴⁴ than vice versa, which also leads us to the unidirectional relationship as in the first case. However, if the company decides to adapt its strategy to people, "the causal relationship is merely reversed" (Lengnick-Hall & Lengnick-Hall, 1988, p. 456), which leads us to the same limitation as in the first case.

The third way claims that companies are very focused on product or service life cycle adapting their organizational strategic human resource management models to it. This leads to little attention being paid to the careful management of the personnel itself, which limits the potential human resource function possibilities. The situation results in little management choice and in a big influence on the firm from the external environment. Moreover, firms may underestimate their potential on the market and their influence (Lengnick-Hall & Lengnick-Hall, 1988).

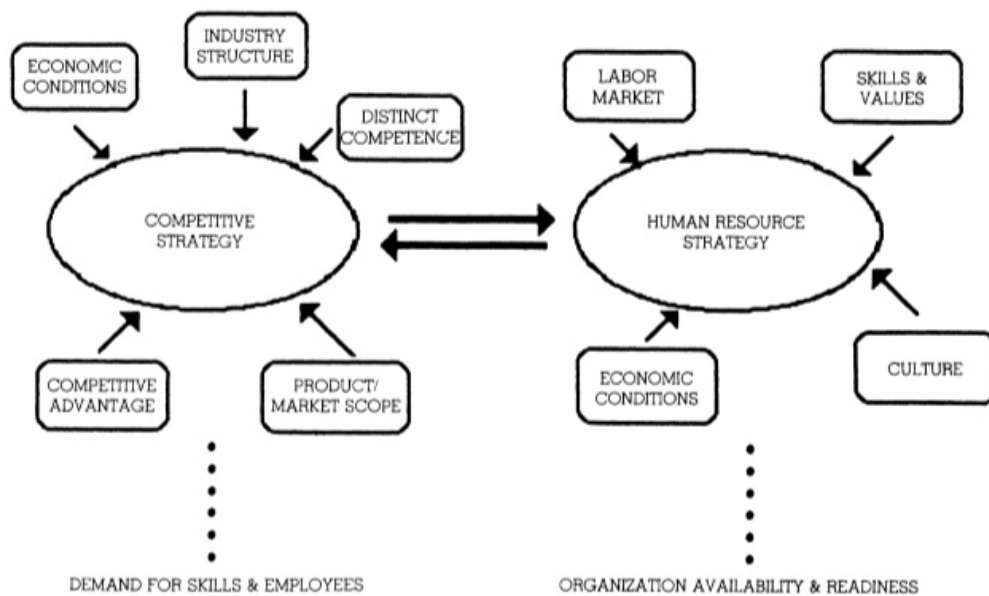
The fourth way describes the difficulty of organizational change in cases when the companies focus on the actual fit and congruence of SHRM strategy with the firm strategy, denying the impossibility of described fit when organization is in the

⁴⁴ As John Elkington claims in his book "Cannibals with forks", nowadays business practices should imply ethically and morally correct strategies because of the fact that everyday more and more people are becoming aware of such practices as, for instance, eco-situation of the planet or ethical norms applied during doing business (Elkington, 1999). To name just a few, such practices as employing slave labor (e.g., I. G. Farben), putting profits ahead of people's life (e.g., Green Cross of Japan) or employing child labor (e.g., Nike, Wal-Mart) are having a great negative impact on the corporate image and, finally, on the profit volume of the corporation in general.

transitional stage or has multiple or/and conflicting goals. This could result in obstacles for organizational change, making it less desirable. Sometimes firm strategy during change could be survival by any means, which could propose solutions contradicting the HR strategy (Lengnick-Hall & Lengnick-Hall, 1988).

Lengnick-Hall & Lengnick-Hall (1988) have proposed the following perspective (Figure 2.1) in order to solve some issues when integrating HRM with the company's business structure (Lengnick-Hall & Lengnick-Hall, 1988).

Figure 2.1. A perspective on business strategy and human resource strategy interdependence



Source: Lengnick-Hall & Lengnick-Hall (1988, p. 467).

The proposed perspective underlines the importance of mutual interdependence between the general company strategy and the human resource strategy in order to achieve composite outcomes that can influence organizational results.

Summing up all the points of strategic HRM, it could be resumed as follows: “the study of HRM systems (and/or subsystems) and their interrelationships with other elements comprising an organizational system, including the organization’s external and internal environments, the multiple players who enact HRM systems, and the multiple stakeholders who evaluate the organization’s effectiveness and determine its long-term survival” (Jackson et al., 2014, p. 2).

2.2. The Importance of HR for organizations

During the following sections we would like to discuss the importance of the human resource function to the organization from the point of view of resource-based theory. Then, we would like to focus on HR and organizations. Finally, the link between organizational performance and human resource management would be underlined.

2.2.1. HR and resource-based view of a firm

The roots of resource-based theory (RBT) or resource-based view (RBV) may be traced back to 19th century from Edith Penrose's *The Theory of the Growth of the Firm*, where the author discusses organizational growth according to the resource base. The theory and its applications were considered in the field of profit-making (Wernerfelt, 1984), competitive advantage (Barney, 1991), resource acquisition and accumulation (Maritan & Peteraf, 2011), diversification (Wan, Hoskisson, Short, & Yiu, 2011) and, mostly, strategic management (Mahoney & Pandian, 1992). Since then, RBV is considered to be one of the most powerful theories for "describing, explaining, and predicting organizational relationships" (Barney, Ketchen, & Wright, 2011, p. 2). Resource-based theory focuses on internal resources of the company, which are the "major determinant of competitive success" (Wright et al., 1994, p. 302). According to the theory, firms perform differently because of different resources available to the company or because firms act differently on the basis of the same resources available (Barney, 1991). In other words, accurate management and application of available resources to the company's strategy could result in different performance.

"A resource is something that a firm possesses, which can include physical and financial assets as well as employees' skills and organizational (social) processes. A capability, in contrast, is something a firm is able to perform, which stems from resources and routines upon which the firm can draw" (Hart & Dowell, 2011, p. 2). By the same token, RBV is focusing the emphasis on the company's strategic decision-making based on its resources and capabilities rather than on the factors of external environment (Hart & Dowell, 2011).

The RBV links resources and capabilities with the competitive advantage⁴⁵ of the firm (Makadok, 2011), which is a must in today's competitive environment (Allard, 2004).

Organizational competitive advantage is gained due to availability and effective and efficient use of the resources and capabilities of that organization (App et al., 2012; Mahoney & Pandian, 1992; Wernerfelt, 1984). Taking into account that some resources are valuable, rare, inimitable and not substitutable, those resources are

⁴⁵ "Competitive advantage grows fundamentally out of value a firm is able to create for its buyers that exceeds the firm's cost of creating it. [...] there are two basic types of competitive advantage: cost leadership and differentiation." (Porter, 2008, p. 3). Sustained competitive advantage is a strategy of creating value that competitors could not copy and could not imitate the results of the strategy in the future (Porter, 2008).

considered to be strategic source of competitive advantage of certain organizations (Barney, 1991, 2012; Ketchen & Hult, 2011; Priem & Butler, 2001).

According to the resource-based view of a firm, human capital derived from human resources can be the source of sustained competitive advantage (SCA)⁴⁶ (Barney, 1991). Considering that i). knowledge and skills of different people and ii). specific training and qualifications the person obtains in addition to his/her professional qualities during working process are also different, human resources (or the pool of human capital from human resources⁴⁷) can be valuable, since employees can capitalize on strengths and try to avoid organizational threats; rare in terms of inability to have the same skills of two different employees even if they have the same qualification level and in terms of quality (Wright et al., 1994); inimitable by others in terms of social complexity and causal ambiguity (Barney, 1991); and, finally, not substitutable.

To gain unique human resources to achieve SCA firms can employ an outstanding talented workforce, train existing employees and retain exceptional workers (Boxall, 1996). Additionally, human resources are considered more important, because other resources are less powerful (Pfeffer, 1994).

Some researchers have distinguished between human resources or human capital pool and the way that HR practices can contribute to the efficient development of organizational capabilities. From this perspective, besides having a human capital pool, achieving competitive advantage requires an effective HRM. The implementation of appropriate HR practices can develop or increase organizational capabilities (Lado & Wilson, 1994).

Having SCA does not mean that the organization would be leading the market and having it forever. The risk of turnover of human resources is a reason that companies might lose the source of unique competitive advantage. Since employees might lack motivation, job satisfaction or satisfaction with the payment level, the turnover risk is always present (Coff, 1997).

“Schumpeterian Shock” may result from economic changes that may lead to the situation where a firm’s SCA resource may no longer play a key role (Barney, 1991). In this situation, other resources of competitors that the firm does not possess may convert to the SCA source. However, those changes are operating environment factors that the firm cannot control and those factors do not depend on the resources the firm has or does not have.

⁴⁶ There is a difference between competitive advantage and SCA mentioned in the previous paragraph. The former is “when a firm is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors” and the latter is achieved when the organization is “implementing a value creating strategy not simultaneously being implemented by any current or potential competitors *and* when these other firms are unable to duplicate the benefits of this strategy” (Barney, 1991, p. 102).

⁴⁷ The abilities, knowledge, intelligence and skills of the employees are considered to form human capital pool within human resources pool (Wright, Dunford, & Snell, 2001).

On the other hand, Barney (1991) argues that the achievement of SCA also depends on resource immobility and heterogeneity⁴⁸. The main discussion focuses on the imaginary situation where all the companies in the industry have the same kind and types of resources available. This, in turn, results in the possibility of implementation of the same kind of strategies and results, which, in other words, results in identical performance – no SCA possibility available.

2.2.2. HRM and business performance

Organizational performance could be defined as a record of achieved outcomes, employee accomplishments, behavior, among others (Armstrong, 2003). Although performance can be understood from different perspectives, most of them underline that organizational performance is about the working process and focusing on results achieved from that working process.

Some researchers argue that it is better to use the term of outcome rather than performance (Guest, 1997; Roehling et al., 2005). As a result, the possible outcomes could be divided into the following three groups:

1. “Financial outcomes (profits, sales, market share, Tobin’s q, GRATE);
2. Organizational outcomes (output measures such as productivity, quality, efficiencies); and
3. HR-related outcomes (attitudinal and behavioral impacts among employees, such as satisfaction, commitment and intention to quit)” (Paauwe & Boselie, 2005, p. 71), in which pro-environmental behavior may be mentioned.

The first intentions to link firm performance with the HR practices⁴⁹ were very simple and based on the common sense understanding that there should be a link. Ulrich claims that initial studies on the link between HR practices and firm performance are written in 1980s. In some cases, results show that some specific HR practices have little impact on business performance, for instance, distribution of compensation systems (Ulrich, Geller, & DeSouza, 1984). In turn, in other cases, HR practices had an impact on firm performance under certain circumstances (Ulrich, Brockbank, Yeung, & Lake, 1993; Yeung & Ulrich, 1990). Some studies found no correlation between HR practices and firm performance. For instance, there was no link found between HR planning investment and firm performance (Nkomo, 1987). However, the conclusion made in those studies needed more researching, because “HR practices seem to matter; logic says it is so; survey findings confirm it.” (Ulrich, 1997, p. 304). The same idea is supported by Guest (Guest, 1997). More research was carried

⁴⁸ The maintenance of heterogeneity depends on resources and capabilities being difficult to imitate or substitute. Finally, the operating environment changes, hence the need to renew the base of resources and capabilities occurs.

⁴⁹ Some researchers, however, prefer to study the relationship between human capital and a firm’s resources (e.g., Crook, Todd, Combs, Woehr, & Ketchen Jr, 2011), suggesting that there is a strong relationship between qualified human capital and a firm’s success, which means that companies should invest in firm-specific human capital acquisition and make a continuous investment in development of human capital, which creates value (Armstrong, 2003).

out in the following decades trying to find the existence of the link between HR practices and firm performance.

The second step of research in HR function was undertaken in 1990s when the survey-based statistical studies took place (Guest, 2011): the interest for quantifying the link between various HR practices (rather than one) and firm performance provoked research to study the impact of HR practices on specific firm outcomes such as turnover, productivity, investments (Ulrich, 1997). For instance, Huselid (1995) has studied the impact of systems of High Performance Work Practices on firm performance, noting that investments into HR practices result in lower turnover, higher productivity and greater corporate financial performance. Macduffie (1995), in turn, has studied the internally consistent HR bundle⁵⁰ effect on assembly plant productivity when used with specific policies such as manufacturing ones.

The third step has claimed that the empirical rush led to unfavorable consequences since the researchers had not taken into account some important issues and factors while measuring HR practices and organizational performance linkage (Dyer & Reeves, 1995; Guest, 2011). One of those issues was the concern that there was little conceptual basis for the selection of appropriate HR practices for the analysis (Guest, 2011). Also, the debate was on about the generalizability underlined in universalistic, contingency and configurational perspectives due to the previous issue (Delery & Doty, 1996).

The next step is focused on conceptual clarification (Guest, 2011). Different theories appeared to explain the relationship between HRM and firm performance. The expectancy theory highlights the importance to take into account individual differences in employee performance at work “since efficient utilization of manpower resources is dependent upon our ability to account for such differences” (Heneman & Schwab, 1972, p. 1). The Ability, Motivation, Opportunity model points out the importance of front-line managers when implementing HR practices (Purcell & Hutchinson, 2007), noting that the employees would contribute to the organization (act in line with HR practice implementation) when they possess skills and knowledge, when they are motivated to do so (want to perform certain activities or rewarded to do so) and when their surrounding environment provides the opportunity or facilities to perform in a certain way (Rayner & Morgan, 2018). Resource-based theory in HRM underlines that having unique, inimitable resources and their effective usage is playing a key role in the achievement of sustained competitive advantage (Barney, 1991). Resource-based theory also underlines that the synergy within the HRM system would bring beneficial effects on the financial performance of the firm (Truss, 2001).

A further step is described as “the key role of workers and the importance of workers’ perceptions and behavior in understanding the relationship between HRM and performance” (Guest, 2011, p. 5), which centers on actual employees of the organization and their role in organizational performance.

⁵⁰ The chosen bundles of HR practices for the study were carefully selected in a way to be applicable to every company, excluding country-specific, industry-specific or company-specific practices. Therefore, the research results are not bound to those limits (Macduffie, 1995).

Finally, the last step is highly complex in trying to open the black box between a firm's performance and the HRM function of the organization, considering their relation on both individual and organizational levels and linkages between them (Guest, 2011). This is also true when discussing research methods and theory development. Research in the HRM-performance relationship was considered under the perspective of a multilevel analysis suggesting the investigation of both organizational and individual levels in order to better understand the relationship (Ostroff & Bowen, 2000). Obviously, research methods have become sophisticated too, using structural equation modelling for the data analysis and collecting data across organizations on a multi-level analysis base rather than from one organization (Guest, 2011).

Although the analysis of how HR practices affect performance is under continuous examination, some questions need to be considered in order to understand it: 1) the amount of studied practices and the meaning of the term performance; 2) the way HR policies and practices are put into practice in every company and 3) sector characteristics (Boselie et al., 2005; Purcell & Kinnie, 2007; Truss, 2001; Ulrich, 1997).

The amount of studied practices and the meaning of the term performance play a key role in this regard. Different HRM practices can have a different impact on firm performance, meaning of performance needing to be clearly stated.

Wright & Boswell (2002) propose a typology of HR research considering the number of HRM practices and the level of analysis (micro and macro HRM research) (Table 2.3).

Some researchers examine the effect of a single HRM practice on individual or organizational performance, while others study the effect of sets of practices, considering that some HRM practices can be complementary or be replaced by other practices. In this case, researchers have considered different sets of HR practices for analysis (Wright & Boswell, 2002). For instance, some scholars, analyze recruitment and selection (Chatman, 1989), while others focus on high performance work HR practices (Huselid, 1995) or management teams (Collins & Clark, 2003).

Some studies have proven that some sets of specific HRM practices may affect firm performance. For example, some sets of HRM practices aimed at promoting family-friendly management, equal opportunity management, and high-involvement management positively affected a company's financial performance in Britain when synergies among practices are achieved (Wood & de Menezes, 2007).

In addition, micro HRM research has focused on the impact of HR practices on the employees outcomes, while macro HRM is aimed at studying the HR practices effects on organizations (Wright & Boswell, 2002).

For instance, empirical research has shown that some human resource practices were linked to specific performance results such as: turnover being tied to job security, unionism, compensation, demographics and culture; productivity – to co-operational labor relation practices, work-life balance, training; also, training, recruitment and

selection, performance appraisal and compensation system practices have been linked with financial performance of the firm (Ulrich, 1997).

There are also some examples of single practices influencing organizational performance. After the analysis of 100 organizations in computer, chemical and natural-gas distribution fields the strong positive effect of executive-team tenure on strategy and firm performance has been found (Finkelstein & Hambrick, 1990). Work-life balance is considered to have a major effect on turnover decrease (Beauregard & Henry, 2009). In terms of compensation, high salaries for executives have a strong positive effect on firm performance (Gomez-Mejia et al., 1987). Table 2.3 represents all those mentioned investigations according to the model of Wright & Boswell (2002).

Table 2.3. The Typology of HR Research with Examples

		Number of HRM practices	
		Multiple	Single
Level of analysis	Organizational	Strategic HRM Industrial Relations High Performance Work Systems (Arnold & Feldman, 1982; Baysinger & Mobley, 1983; Borman, 1991; Gerhart & Milkovich, 1992; J. S. Russell, Terborg, & Powers, 1985; Terpstra & Rozell, 1993)	Isolated Functions (i.e., research aimed at demonstrating a relationship between a particular functional area and firm performance) (Beauregard & Henry, 2009; Finkelstein & Hambrick, 1990)
	Individual	Psychological Contract Employment Relationship (Cutcher-Gershenfeld, 1991; Katz, Kochan, Keefe, Lazear, & Eads, 1987; Weitzman & Kruse, 1990)	Traditional/Functional HRM Industrial/Organizational Psychology (Gomez-Mejia, Tosi, & Hinkin, 1987)

Source: Wright & Boswell (2002, p. 250); author's own elaboration on the model developed by Ulrich (1997, pp. 313-314).

The linkage between firm performance and HR practices could not be seen without analyzing how HR policies and practices are used in every company (Truss, 2001). Prior research has noted that the employee should be on the center stage of the study of HRM-firm performance linkage, in a sense that employee is the one who accepts or rejects HR practice and employees' behaviors can affect performance (Purcell & Kinnie, 2007).

Last but not least, since the HRM effect on performance was studied in different sectors, results may vary depending on the sector, meaning that in one sector the HRM effect on performance might not be important; but in another sector the impact could be huge in comparison with the previous sector (Purcell & Kinnie, 2007).

Since the HRM effect on firm performance is a very complex phenomenon, further approaches regarding the link HRM-firm performance would be discussed.

2.2.2.1. The relation of HRM and organizational performance: universalistic, contingency, configurational and contextual approaches

There is a debate between best practices and best fit (Paauwe & Boselie, 2005). Some authors argue that there are a set of best practices that function perfectly well in all organizations. However, others argue that there is a best fit of practices according to the special internal and external characteristics of each and every organization. The aforementioned should be also considered from the organizational strategy perspective. Since HR practices are aligned with organizational strategy, a good HR practice can increase the value of human resources working for the organization (by trainings, development, job rotation) and influence employee behavior depending on the organizational interests. As a result, competitive advantage could be gained if the employee is willing to behave in the interests of the organization (Paauwe & Boselie, 2005).

On the other hand, some employee benefits provided by the organization in one country in order to increase employee job satisfaction and commitment, may be the result of law/institutionalized in another country (Paauwe & Boselie, 2005): a careful indicator selection is needed in order to be able to link HR practices with organizational performance and see if there is a cause-effect relationship between them.

For the reason mentioned above, SHRM is considered from the point of view of different perspectives analyzing HRM strategies and the link between performance and HR strategy (Gestel & Nyberg, 2009) that could be the best case scenario for a certain organization; mainly, four of them: universalistic, contingency, configurational and contextual approaches (Martín-Alcázar et al., 2005).

Universalistic approach

Universalistic approach (internal or horizontal fit) is the simplest approach of all the listed ones above. According to this approach, HRM strategies are characterized as general, that could be combined in a “one best way” (Martín-Alcázar et al., 2005) or universalistic and should contribute to organizational well-being (Martín-Alcázar et al., 2005). Universalistic approach refers to the notion that strategic HR and performance are universal across the organizational population (Delery & Doty, 1996), and there is a positive correlation between HRM and firm performance (Tzafrir, 2006). In general, the universalistic approach considers a single practice or a set of HR practices – mainly, recruitment, appraisal compensation and training practices (Martín-

Alcázar et al., 2005) – effective in achieving high performance of the organization, which all firms should adopt to outperform their rivals (Darwish, 2013).

In other words, there are some “high road” or set of best practices that lead to positive results in any organizations of different size, sector of business activity or business strategy (Tzafrir, 2006). The approach came out after studying specific practices on their own with no constant results (Becker & Gerhart, 1996). Some studies have shown that some practices have a positive effect on any organizational performance results, such as executive pay rise (Leonard, 1990) or total quality management practices (Kaynak, 2003). The main contribution of the approach is the underlining the importance of the human factor in the organization⁵¹ (Martín-Alcázar et al., 2005).

One problem with this approach is that there is no universal agreement on the set of best practices. Some of the variations could be the following: i). participation, selection and training, incentive compensation, promotion from within, recruitment, grievance procedure (Harel & Tzafrir, 1999); ii). “formal training systems, appraisal measures, profit sharing”, etc. (Delery & Doty, 1996, p. 805); iii). training (Tzafrir, 2006); iv). selection and hiring, job security, training, compensation system based on performance, non-discriminatory status at work, work teams, information sharing (Pfeffer, 1998).

In addition, the critics arguing whether the universalistic approach is viable underline that organizations are dynamic and usually operate in various markets, so “one best way” simply may not be feasible for them. Also, employees may perceive those practices differently behaving according to their perception, which may be different from the real certain expected behavior (Marchington & Grugulis, 2000).

Explaining the hiring process, the universalistic approach advises hiring “general people” rather than employees with specific characteristics to solve immediate needs, because that kind of personnel could offer more in the long run. However, that might be a cost-cutting measure, since personnel with specific characteristics might need a specialized hiring commission, which results in more costs (Marchington & Grugulis, 2000). The commission in this case is hired once and employee specialized trainings should be done for every new employee, which costs more.

Also, the universalistic approach might not work well in the service sector, especially in the hospitality industry (Hughes, 2002), because clients would not tolerate short term bad service in order to contribute to the future development of the service entity⁵².

⁵¹ In order to develop universalistic practices i). important HR practices should be underlined and ii). the arguments that link individual practices to firm performance should be developed (Delery & Doty, 1996).

⁵² For instance, if under cost-cutting measures the seasonal company (e.g., mountain ski resort that hires more workers on ski seasons) may apply the strategy of later hiring and de-hiring at the end of a season, the employee commitment may go down as a result of employment insecurity, if certain strategies to avoid those kinds of employee dissatisfaction are not taken. That may lead to worse service, which the customers would not tolerate for the aim of cost cutting progress of the hotel.

Some researchers claim that the universalistic best practice set is not that universal when unpacked and studied in detail, presenting controversial ideas and not being as universally applicable as it claims to be (Marchington & Grugulis, 2000). Also, the approach is criticized by not having a solid enough theoretical framework (Martín-Alcázar et al., 2005) and not considering the context of the organization, excluding a big amount of work HR specialists have done that is vital for the organization (Brewster, 1999).

Contingency approach

Contingency perspective (external fit or vertical fit) “requires a researcher to select a theory of firm strategy and then specify how the individual HR practices will interact with firm strategy to result in organizational performance” (Delery & Doty, 1996, p. 807).

In other words, the theory considers specific strategic HRM practices and their effects on organizational performance of a given organization (Delery & Doty, 1996; Snell & Youndt, 1995) with the interaction of a contingency variable, which is a company strategy in the majority of SHRM literature (Delery & Doty, 1996). If the practice is consistent and suits the overall organizational strategy, the firms adopting such HR practices might be successful in achieving high organizational performance⁵³.

Apart from company strategy acting as a contingency variable, there are other variables studied as a contingency component of the approach. Some of them analyzed in previous works are innovation (rates at which product, service or market innovation is applied) (Hambrick, 1983; Zajac & Shortell, 1989), organization size, organizational life cycle stage, technology, organizational structure, legal, social and political environment where the company operates (Jackson & Schuler, 1995), competitive positioning of the firm, finances (Boxall, 1998), among others.

The approach is more complex than the previous one: it considers interactions rather than simple linear relations considered by the universalistic approach (Delery & Doty, 1996). Contingency approach is proposing the opposite point of view to the previous “best set of practices” model, saying that because of the differences in top management characteristics (Schuler & Jackson, 1987), management, firm organization and decision-making procedures, no single set of practices could be held as a rule when making strategic decisions (Mills, Platts, & Gregory, 1995; Quinn, 1989). Within the framework of contingency approach is employee behavior acting as a mediator between firm strategy and firm performance, so that HR acts as a control tool in order to motivate and encourage employee behavioral patterns contributing to the organizational strategy (Wright & McMahan, 1992).

Contingency perspective claims the viability of unique competitive strategy for a given company. The point lies within the idea that the strategy should be selected according to the company needs after careful study of all the factors inside the company such as human capital qualities, resource availability, stakeholder

⁵³ However, some authors state that when considering specific HR strategy for any given firm such factors as firm size, technological advancements and innovation should also be considered.

expectations, among others, and external ones such as company operating environment, competition and demand of the company products, to name just a few. Also, a company may select several competitive strategies that best fit company needs, goals⁵⁴ (Schuler & Jackson, 1987) and a constantly changing environment (Stavrou & Brewster, 2005). The ability to learn faster than competitors is considered more important than uniqueness of available resources (RBV) (Stavrou & Brewster, 2005).

The main contribution of the approach lies in the consideration of a third party that plays a mediating role between HRM strategy and organizational performance, which may define the understanding of how to create and activate the potential of human capital available to the organization (Martín-Alcázar et al., 2005).

Criticism of the approach lies within its core principle. Since the market is always changing, there might be several contingencies, and, respectively, various HR practices to respond to those contingencies. In addition, since market is changing, HR practices may also be changing in the short term, making it difficult to measure their effect on firm performance. Also, over time because of the contingencies, the organization may not treat its employees consistently, changing the treatment according to the pressures of the external operating environment (Darwish, 2013).

From the employee point of view, the situation is no better. Since company strategy would be continuously changing to respond to customer demand, market condition, employees would be continuously exposed to the change in the expected behavior. As Schuler and Jackson state the situation perfectly, personnel would “face an ever-changing employment relationship” (Schuler & Jackson, 1987, p. 217), which may result in confusion in on-the-job role behavior and lower employee performance. In addition, if one HR practice changes, overall HR strategy changes too, since the system of the HR practices needs to be changed and applied simultaneously. As was previously noted, continuous change may result in employee frustration and role conflict (Schuler & Jackson, 1987).

Configurational approach

The configurational approach (internal, external and vertical fit) strives to underline the perfect HRM bundle of practices to stabilize vertical and horizontal fit and link it with organizational strategy. Here the importance is placed on a pattern of factors that are maximally effective (Darwish, 2013): “configurational theorists working in SHRM must theoretically derive internally consistent configurations of HR practices, or employment systems, that maximize horizontal fit, and then link these employment systems to alternative strategic configurations to maximize vertical fit” (Delery & Doty, 1996, p. 809).

⁵⁴ “According to Mitchell Kapor of Lotus Development Corporation: To be a successful enterprise, we have to do two apparently contradictory things quite well: We have to stay innovative and creative, but at the same time we have to be tightly controlled about certain aspects of our corporate behavior. But I think that what you have to do about paradox is embrace it. So we have the kind of company where certain things are very loose and other things are very tight. The whole art of management is sorting things into the loose pile or the tight pile and then watching them carefully” (Schuler & Jackson, 1987, p. 216).

In other words, configurational approach seeks to identify the best or, at least, correct HR system of practices, the pattern of which leads to superior performance when those practices in the system are used together (Delery & Doty, 1996). The system is considered to be equally effective in the same set of conditions⁵⁵ (Delery & Doty, 1996).

The configurational approach could be described as an opposite point of view of the universalistic approach, since its basic idea is focused on the analysis of elements of HR function that could be combined and interchanged differently according to the needs of the organization. The approach claims that the importance of internal and external organizational factors plays an immense role, but the coherence of HR function elements is also a key, which could be considered the main contribution of the approach (Martín-Alcázar et al., 2005).

The approach seeks to investigate how organizational resources, capabilities, practices integration contributes to the achievement of sustained competitive advantage (Stavrou & Brewster, 2005). Within the approach, “HRM system is defined as a multidimensional set of elements that can be combined in different ways to obtain an infinite number of possible configurations” (Martín-Alcázar et al., 2005, p. 637), so that organization not only perfectly fits with its operating environment, but also coherent internally with a consistent set of HR practices. The approach seeks to fit the selected HR system with company strategy: only in this case the selected HR strategy would lead to the maximal efficiency (Delery & Doty, 1996).

To be precise, configurational approach claims that in order to achieve SCA the organization should implement various interrelated and consistent among each other practices (so called bundle of practices) together, which would be more effective than any given practice alone (Stavrou & Brewster, 2005). Stavrou & Brewster (2005) in their research identify six bundles that are positively related to performance in EU context: training bundle, share-options bundle, profit-sharing bundle, communication on finance bundle, communication on organization of work bundle and wider-jobs bundle.

The configurational approach is considered to be the complex one (Darwish, 2013). There is a necessity of consistency of HR practices and between HR practices and organizational strategy. For instance, an employment system that considers job description, performance appraisals and profit sharing might be considered a perfect strategy from the point of view of the configurational approach, which means that applying named employment system would lead the organization to have exceptional organizational performance.

Of course, critics of the approach also exist: methodology of measurement is unclear since the set of bundles is undefined and vary. Each company includes different meaning to the same concept of, for instance, training bundle (Wright & McMahan, 1992).

⁵⁵ In comparison, as we have seen earlier, for instance, the universalistic approach argues that certain HR practice is best in any conditions for any companies.

Another point of view states that since the contingency theory⁵⁶ states that HR practices elicit employee behavior, it is impossible to track all the effects of the latter – it is not only firm performance that is affected by employee behavior, but also employee attitudes, labor costs and productivity (Wright & McMahan, 1992).

Another important point is that the variety of HR practices within a bundle might have the same effect on firm performance: bundle A consisting of practices X and Y might have the same effect on firm performance as bundle B with practices X and Z (Wright & McMahan, 1992). In other words, different HR practice bundles could result in horizontal fit: there are infinite combinations of those. However, it is not enough – the organization must maximize the vertical fit. In order to achieve a balance the organization must select the HR practice bundle that has the same results both on horizontal and vertical fit in order to reach maximal organizational performance (Delery & Doty, 1996).

Contextual approach

There is one perspective more that explains the interdependence of HRM and firm performance – contextual approach (Russell & Bernardin, 1998), which contextually searches for what is sui generis and why (Brewster, 1999). The main idea lies in the following: the interdependence of HR strategy with internal strengths and weaknesses is also explained by other named approaches, however, contextual perspective underlines the importance of studying external environmental effects where firm operates on HR strategy forming (Brewster, 1999), i.e. the context of the firm.

The importance of the approach is “in the reconsideration of the relationship between the SHRM system and its context” (Martín-Alcázar et al., 2005, p. 638), “searching for the understanding of what is contextually unique and why” (Brewster, 1999, p. 48). The contextual perspective “introduces a descriptive and global explanation through a broader model” (Martín-Alcázar et al., 2005, p. 637) of the differences between and within HR strategies in various contexts, trying to indicate the antecedents of those differences within a particular context, which is the primary concern of the approach. The firm performance is the secondary concern (Brewster, 1999).

The approach claims that the HR function is not only affected by internal and external organizational factors, but also affects them itself being a part of a macrosystem, which could be the main contribution of the approach (Martín-Alcázar et al., 2005). We should be aware of the idea that each described approach complements the others.

Some authors underline various ways of achieving SCA with the help of HR strategy. The first way lies in the HR participation in the process of organizational

⁵⁶ Traditional contingency theory is similar to configurational interpretation in a way that both of them argue that there is an infinite possibility of combinations of HR practices that leads to maximally effective firm performance if to use them in association with correct strategy. However, they differ in the following way: contingency theory focuses on individual HR practices and firm strategy, whereas configurational approach considers the relationship pattern of HR practices (Delery & Doty, 1996).

change while adapting to the changing environment where firm operates. The second way underlines the importance of HRM in developing the strategy according to the company SWOT. The third way proposes the strategic unity in business and stakeholders made by linkage, which would be HR (Stavrou & Brewster, 2005). For the contextual approach strategies are not only considered from the point of view of their effect on organization internally, but also by the influence of the external forces (Martín-Alcázar, Romero-Fernández, & Sánchez-Gardey, 2008), so that multiple stakeholders of the firm (Brewster, 1999) are taken into account while formulating the strategy.

One of such external factors might be the legal environment of the geographical location, i.e. country, where the company operates – its context, which company strategy must be in line with. Sometimes that legal environment influences the HR strategy heavily putting straight laws and regulations⁵⁷ that must be respected and applied in some HR basic functions, such as hiring or workplace safety (discrimination and civil rights violation laws) (Cooper et al., 2005). Other external contextual factors are culture, labor markets, ownership structures, the role of trade unions and the state (Brewster, 1999), industry characteristics, national traditions (Jackson & Schuler, 1995), while internal ones are management actions (Brewster, 1999), technology, structure, size (Jackson & Schuler, 1995).

The critics of the approach state that the methodology of the data analysis lie mostly on the simple statistics such as comparisons of means and standard deviations, while in the future a more complex analytical framework could be used (Martín-Alcázar et al., 2008). Also, research questions could be more defined that would lead to more careful measurement (Brewster, 1999).

Since contextual approach analyzes different levels of strategic HR (e.g., life cycle, size, technology, sector, international, national, local, organizational, site levels), sometimes it is very difficult to consider various levels at a time or center the specification of the analysis on one particular level, which makes research complicated. The situation may lead to the management decision to use various strategies without careful analysis and just keep those that result in positive firm performance (Brewster, 1999).

⁵⁷ For instance, in United States there are a lot of legal laws on health and safety provision at work, compensation, work and family issues, etc. that could make job conditions a better place to work (Cooper et al., 2005). Within laws and regulations of doing business in Spanish government there are a law (strategic planning until 2020) underlining the importance of the attention of quality when it comes to employment creation, including employment that contributes to sustainable development of the company, and, as a result, of a country as a whole (Ministerio de Empleo y Seguridad Social, 2014). Also, understanding legal environment could give a hand to HR manager to do the right thing when decision-making process occurs, face the limitations of HR department of the company and diminish company's potential liability (Gomez-Mejia, Balkin, & Cardy, 2004). For instance, respecting legal issues could lead to equal pay opportunities not dependent on gender basis, which eliminates some issues on gender discrimination, equal promotion opportunities, hiring of disabled people, avoiding race discriminations, etc. All those examples are civil rights of employees (Armstrong, 2003), the violation of which could result in huge financial liabilities in court awards of victims of civil rights violations.



3. SUSTAINABLE HUMAN RESOURCE MANAGEMENT, GREEN HUMAN RESOURCE MANAGEMENT AND PRO-ENVIRONMENTAL BEHAVIOR AT WORK

After the publication of the Brundtland report in 1987, the concept of sustainable development began to be linked with business areas such as management and business strategy, lately including human resources (Ehnert & Harry, 2012). Human resource management is believed to be closely linked to the environmental, social and economic bottom lines of sustainable development⁵⁸ (Ehnert & Harry, 2012).

Sustainable human resource management is gaining importance in current literature on HRM (App et al., 2012; Ehnert, 2009b, 2009d; Ehnert & Harry, 2012; Elkington, 1999; Gomes, Kneipp, Kruglianskas, da Rosa, & Bichueti, 2014; Mariappanadar, 2003; Warhurst, 2002; WCED, 1987), particularly, because of the diffusion of the concept of corporate social responsibility that leads to the linkage of sustainable development to human resources (Ehnert, 2009d). For instance, when putting “sustainable human resource management” into a search tab, Google scholar gives about 2,830,000 results varying from books to journal articles on the topic, JSTOR collection gives 65,266 results and Scopus library gives 10,667 document results (the search was performed on 24th of September 2019).

3.1. The concept of sustainable human resource management (STHRM)

The concept of sustainable human resource management⁵⁹ can be defined as a term that involves two concepts joined together – sustainable development and human resource management. Based on the explanation of the concept of sustainable development, the sustainable HRM could be defined as “the management of human resources to meet the optimal needs of the company and community of the present without compromising the ability to meet the needs of the future” (Mariappanadar, 2003, p. 910). This means that organizations, employees of those organizations and society are mutually accountable for sustainable HRM activities, signifying that

⁵⁸ For instance, one option of cost-cutting could be downsizing the number of the company’s employees, which, in turn, is claimed to be ineffective and inefficient in order to increase profit levels (Mariappanadar, 2003). Apart from individual employee problems such as joblessness, health related problems and stress due to the work overload (social bottom line), during downsizing the creativity of the employees diminishes significantly, which is not contributing to the development of competitive advantage (environmental and economic dimensions could be implicated) (Mariappanadar, 2003). As a result, the complex system of workforce in the HRM environment should be created, which is a sustainable manner of managing human capital of the organization (Ehnert, 2009b).

⁵⁹ Prior literature has used the variety of terms to link HRM activities and sustainable development. As Kramar (2014) has analyzed in his research, those terms were: sustainable work systems, HR sustainability, sustainable management of human resources, sustainable leadership, sustainable HRM and sustainable organization.

employees are accountable for themselves, their career prospects and their participation in the decision-making process, and HR is accountable for self-actions (Ehnert, 2009d).

However, the term has been interpreted from different points of view. Some researchers argue that the full potential of the concept has not totally been explored yet, focusing on various issues regarding environmental and social topics such as organizational change design, environmental issues, employability, workplace justice, and so on in the business field (Ehnert, 2009d). Different definitions of sustainable HRM have been proposed (some examples could be seen in Table 3.1).

Table 3.1. Definitions of sustainable HRM

AUTHOR	DEFINITION
Ehnert, 2009c, p. 74	"Sustainable HRM is the pattern of planned or emerging human resource strategies and practices intended to enable organizational goal achievement while simultaneously reproducing the HR base over a long-lasting calendar time and controlling for self-induced side and feedback effects of HR systems on the HR base and thus on the company itself"
Ehnert et al., 2016, p. 3	"Sustainable HRM can be defined as the adoption of HRM strategies and practices that enable the achievement of financial, social and ecological goals, with an impact inside and outside of the organization and over a long-term time horizon while controlling for unintended side effects and negative feedback"
Dunphy & Griffiths, 1998; Gollan, 2000 (taken from Gollan, 2005, p.25)	"The capacity of organisations to create and regenerate value through the sustained application of participative policies and practices"
Kramar, 2014, p. 1084	"Sustainable HRM could be defined as the pattern of planned or emerging HR strategies and practices intended to enable the achievement of financial, social and ecological goals while simultaneously reproducing the HR base over a long term. It seeks to minimise the negative impacts on the natural environment and on people and communities and acknowledges the critical enabling role of CEOs, middle and line managers, HRM professionals and employees in providing messages which are distinctive, consistent and reflect consensus among decision-makers."
Müller-Christ & Remer, 1999	What organizations themselves have to do to in their environments to have access to highly qualified people in the future
Thom & Zaugg, 2004, p. 217 (translated by and taken from Ehnert, 2006)	"Those long-term oriented conceptual approaches and activities aimed at a socially responsible and economically appropriate recruitment and selection, development, deployment, and release of employees"
Zaugg & Bloom, 2001, p. 1	"It is defined by methodological and instrumental approaches whose objectives are long-term-oriented, socially responsible and economically efficient recruiting, training, retaining and disemployment of employees"

Source: De Prins, Van Beirendonck, De Vos, & Segers (2014); Ehnert (2009c); Ehnert & Harry (2012); Ehnert, Parsa, Roper, Wagner, & Muller-Camen (2015).

The broader definition of sustainable HRM clearly shows that sustainable HRM function plays an important role for organizations striving to sustainability, which could be taken from Ehnert and colleagues, who point out that “sustainable HRM can be defined as the adoption of HRM strategies and practices that enable the achievement of financial, social and ecological goals, with an impact inside and outside of the organization and over a long-term time horizon while controlling for unintended side effects and negative feedback” (Ehnert et al., 2016, p. 3). This definition underlines two important factors of STHRM that are i). having multiple and contradictory goals of each dimension of triple bottom line, and ii). interrelation between HRM system and its working environments, both internal and external to control externalities and resource regeneration.

Sustainable human resource management includes all the aspects of internal and external interrelations of the organization with its operating environment embracing organizational goals and their interdependence and contradictions with control of externalities that might appear within the production and operation processes of the organization. No doubt, that not only is sustainability of HR function important in achieving sustainability within a single firm, but also on the global scale (Cohen et al., 2012; Ehnert & Harry, 2012; Jackson et al., 2011).

In order to add light to the concept of sustainable HRM, it is interesting to consider the relevance of the sustainable development concept to HRM through multiple levels of analysis: macro, meso and micro level (Ehnert, 2009a). The two major lines of arguments presented to underline the importance of sustainable development applied to HR are i). the interaction of the organization with its economic and social working environment (macro level), and ii). sustainable development applied to the internal elements of the organizations (meso and micro levels) (Ehnert & Harry, 2012).

The macro level of analysis refers to sustainable development as a sustainable societal development and its relevance for business when delivering critical resources, interrelation of society and business when it comes to justice and resource allocation. Hence, the macro level is usually linked with social and environmental sustainable development (Ehnert & Harry, 2012).

The meso level deals with the development of sustainable organization including work and HRM systems⁶⁰. Here the importance of HRM in achievement of organizational sustainable development may be discussed.

The micro level, in turn, is also called the individual level of analysis since it considers human sustainability or the development of discrete human resources (Ehnert & Harry, 2012). Individual employee's pro-environmental behavior and its effects on organizational sustainable development and vice versa could be an example of micro level analysis.

⁶⁰ The meso level is centered on the organization itself and its systems, questioning and analyzing whether one system being sustainable affects overall organizational sustainability (Ehnert & Harry, 2012).

3.1.1. Sustainable HRM: macro level

The first line of argument refers to a macro level, which analyzes the relationship of HRM and corporate sustainable development in terms of social and environmental bottom lines, i. e. considers the company relationship with its external operating environment in terms of firm effect on society and ecology it is working in (Ehnert & Harry, 2012).

Sustainable HRM here delivers critical resources to the organizations and makes itself responsible for the outcomes⁶¹ (Ehnert & Harry, 2012). In other words, the macro level of analysis refers to the effective HR practices that contribute to the achievement of triple bottom line goals enhancing environmental and social initiatives, where HR practices play an important role in incorporation of environmental and social practices and facilitation of employee environmental behavior (Ehnert et al., 2014; Zibarras & Coan, 2015):

1. social bottom line – the effect of hiring and firing practices of the organization may seem to affect only the firm's costs and benefits. However, for instance, downsizing practices should be beneficial to the companies only if the impact of those on society is minimal (Mariappanadar, 2003). Under the social bottom line HRM should not discard societal disclosure on sustainable development because of the contributions HR can make to the achievement of organizational sustainability (Ehnert & Harry, 2012). Under the social bottom line, HRM practices addressing social sustainability should be implemented, fair hiring and firing practices should be adopted and used, human rights must be respected, no forced and/or child labor must be used, no discrimination should be tolerated (Ehnert et al., 2013), among others.
2. ecological bottom line – the integration of environmental management system (EMS)⁶² to HRM practices addressing environmental performance could be a first step to achieve sustainability within an organization (Zibarras & Coan, 2015). In addition, affecting social bottom line (previous point) hiring practices are also accounted to impact environmental bottom line through hiring individuals who are environmentally committed (Zibarras & Coan, 2015) to encourage employee activities towards environment (App et al., 2012; Gomes et al., 2014; Mariappanadar, 2003). Also, practices of societal disclosure, i.e. social responsibility reporting that includes “information about environment, energy, human resources and community involvement” (Deegan & Gordon, 1996, p. 187), on environmental organizational practices and trainings of personnel on the issue may additionally contribute to the environmental bottom line (Ehnert & Harry, 2012), leading to the creation of organizational legitimacy that contributes positively to the organization's reputation (Deegan, 2002). Further, the organization should also provide environmental responsibility and

⁶¹ When, for instance, recruited staff behave in an undesirable way abusing the resources or acts illegally (Ehnert & Harry, 2012).

⁶² EMS is a document that regulates all the activities, policies and procedures held within the organization related to the control of the organizational environmental footprint including several standards such as ISO 14001 that the organization could adhere to (Zibarras & Coan, 2015).

challenges, and encourage the development of environmentally friendly technologies (Ehnert et al., 2013). Overall, environmental management practices integrated into HRM may result in a working environment and organizational culture that supports the idea of being eco-friendly, nurtures environmental values and attitudes, raises awareness on environmental issues, applies some environmental leadership initiatives to the organizational atmosphere, which may result in creating environmental non-written norms and behavioral traits towards the environment in the organization. Some additional initiatives from employees to the environmental management system may appear in order to facilitate organizational eco-friendliness, such as the establishment of recycling points on every floor of the firm for easier recycling or suggestions of employees on how to optimize the production process with fewer resources. All those aspects are not only beneficial from the point of view of minimization of the environmental footprint of the organization, but also from the point of view of fewer resources used, which affects costs.

In order to implement mentioned practices into actual company activities, HR managers could start by introducing the ecological sustainability concept (Ehnert et al., 2014) to top executives, then change the strategy aiming at sustainability issues by aligning HR systems and modelling appropriate behavior (Hitchcock & Willard, 2009).

Ehnert & Harry (2012) propose that the success in reaching sustainable development in economic, social and environmental fields while doing business is a kind of the utopic theory which could be achieved only if the organization were able to change the whole business strategy and company's culture. However, the majority of big enterprises are not exposed to quick changes because of the lack of flexibility due to the size of the company, and are vulnerable to major radical strategic differences (Kozica & Kaiser, 2012).

On the other hand, sustainable behavior is favorable in many terms (e.g., organization's reputation), long-term business success, transparency and accountability creation, firm performance, improvement of life of company employees and society (Ehnert, 2009d). On the macro level, sustainable company behavior could help to reduce risks of the loss of social legitimacy (the costs derived from impacts on natural environment and society could be internalized) and create value by product/service greening that would attract consumers willing to pay higher prices for the value and addressing the needs that were not addressed before (social impacts) (Ehnert et al., 2014).

3.1.2. Sustainable HRM: meso level, micro level

Sustainable HRM can also focus on resource-consuming and resource-regenerating choices: the company should use its resources in a way that there is a long-term balance of resource consumption and resource regeneration and development. In other words, making sure that the critical resources are available in

the future. This idea, which was used in other fields of research such as ecology, is perfectly applicable to human resource management (Ehnert et al., 2013): sustainable HRM manages a present and future supply of qualified people (Thom & Zaugg, 2004), preventing negative effects of intensive work (resource consumption versus resource regeneration) (Mariappanadar, 2003), making itself responsible for those activities (Thom & Zaugg, 2004).

At a meso level, HRM systems and development of sustainable organizations are under focus. Here the main idea is that in order to be economically, ecologically and socially sustainable, organizations need to carry out the sustainable development concept in organizational sub-systems such as HRM (Ehnert & Harry, 2012).

The issues that are under consideration at meso level are those considered to be internal elements of the company and HRM and related to the organizational climate: lack of skilled personnel to work for the organization⁶³, for example⁶⁴. The firms in this case develop sustainable HRM systems as a survival strategy, noting the importance of employment of specifically formed personnel, that goes in line with the organizational goals (Ehnert & Harry, 2012). Also, quality of working life including safe working conditions and employee perception of their own well-being measured by the overall job quality index was created to establish norms of a working environment (Ehnert et al., 2013).

The individual level or micro level deals with the development and regeneration of human resources, i.e. it studies the sustainable development at an individual level or, in other words, human sustainability (Ehnert & Harry, 2012). HR practices may affect the individual level of analysis resulting in employee aging, health problems at work, lack of work-life balance, eroding trust, and other similar problems that affect organizations (Ehnert, 2009c)⁶⁵. Here we also focus on individual behavior and HRM practices that could motivate and enhance desired behavior or prevent undesired ones.

Applying sustainability criteria to manage human resources makes sense because of the belief that the critical human resources of the organization are rather exploited and abused than developed and regenerated (Kira, 2003, 2005; Thom & Zaugg, 2004). The results of that employee exploitation (if employees work more than their “regenerative” rate permit them to) could be eroding of trust, joblessness (Ehnert, 2009d; Mariappanadar, 2003), burnout, work-related stress, health issues (Ehnert, 2009d; Mariappanadar, 2003), among others. Moreover, some researchers claim that throughout time business strategies have changed a lot due to the complex business environmental factors, rocketing number of competition and globalization. The last point led to the scarcity of skilled labor (Ehnert, 2009d; Thom & Zaugg, 2004).

⁶³ Here organizations themselves may affect the situation where qualified personnel is not available by expanding globally – more qualified managers are needed and overall there is a very small number of managers that could take such a “global” job (Ehnert, 2009c).

⁶⁴ Other issues under the consideration of sustainable HRM at meso level may be development of sustainable organizations, work systems and HRM systems.

⁶⁵ Those are problems of regeneration and qualification (Ehnert, 2009c).

At a micro level, one of the ways for sustainable HRM to contribute to the solution of the exploitation problem may be the following: sustainable HR “works with an understanding of emergence and is inspired by a desire to liberate, rather than control” (Clarke, 2011, p. 134). In other words, sustainable HR leave a space for learning and self-development of workers with the possibility of applying creative problem-solving, rather than implementing prescribed and rules-based behavior from A to B, monitoring and controlling the employees all the time. Here the employee gets a certain level of freedom when making decisions about the working process and could apply creativity, rather than only standard rules. The employees are not exploited and abused, but rather motivated to become “everything they already are”, by creating a friendly space where learning unfolds and barriers and obstacles are removed (Clarke, 2011, p. 134), giving employees a chance to apply their own solutions and ideas to organizational problems. Such an approach may reduce burnout, work-related stress and the health issues mentioned above, and may lead to superior performance levels (Clarke, 2011), which could be one of the competitive advantage options on the market.

The problem of human resource scarcity may also be solved by sustainable HRM by i). retaining qualified employees over time (Ehnert, 2009a; Lis, 2012; Thom & Zaugg, 2004) in line with organizational culture (Ehnert & Harry, 2012); ii). establishing employer branding (Lis, 2012) and reputation (Dögl & Holtbrügge, 2014), which also increases employee value proposition through addressing expectations and need of current, future and potential employees (App et al., 2012). The companies that implement sustainable HRM practices may become employer-of-choice being able to attract the best of the best of the employees on the job market (Lis, 2012) and being able to retain them during time reducing turnover, which means that the employees of such companies are the best qualified personnel available. In addition, the sustainable HRM focus on the whole qualities of the individual, rather than specific capabilities needed to perform the job. It helps in the development of the working environment where the employee is engaged as a whole, eliminating future distress and willingness to leave the organization (Clarke, 2011).

We have previously seen that all the resources of the company should be managed in the best way in order to achieve the better competitive position on the market and have high performance levels (RBV) (Barney, 1991). The sustainable HRM is critical in gaining competitive position of the market⁶⁶ (Schuler & Jackson, 1987; Welbourne & Cyr, 1999), because of its ability of “deployment, regeneration, and development of employees while simultaneously making investments into relevant organizational environments for having skilled and motivated people available in the future” (Ehnert, 2009d, p. 71).

⁶⁶ Consequently, the strategy of gaining competitive advantage could be the capitalization of strengths, avoidance of weaknesses, building opportunities and avoiding threats of the environment where the company operates (Kotler & Armstrong, 2003). If the external factors of SWOT (opportunities and threats) could not be controlled much, the internal ones (strengths and weaknesses) are fully dependent on the resource base of the company – physical capital, human capital and organizational capital resources (Barney, 1991).

3.2. Sustainable HRM and strategic HRM

In the current section we will be focusing the attention of the reader on some differences and similarities of the concepts of strategic HRM (SHRM) and sustainable HRM (STHRM). This is a complex task, as sustainability goals are also considered by SHRM.

SHRM can be understood from different perspectives (Aust, Brandle, Keegan, & Lensges, 2017) and it is not a static concept (Kramar, 2014). In addition, the understanding of the terms sustainable and sustainability is very heterogeneous (Ehnert, 2006). However, as STHRM play an important role in this work, the following lines try to contribute to show our vision of this topic.

The evolution of HRM could be described in the following stages where sustainability is the last stage (Freitas, Jabbour, & Santos, 2011):

1. Conception – the first stage when organization is formed and only basic functions are present, no human capital control.
2. Personnel department – operational activities are carried out, HR department has only basic functions, and labor laws are established.
3. Strategic human resources – HR department is well-established, operates according to the goals of the organization not forgetting personnel interests, future integration of HR function into the organization is needed in order to receive the maximum commitment and well-functioning towards reaching organizational common goals.
4. HRM as a base of company's sustainable development – organizational sustainability is centered on HR function. Environmental management, diversity and personnel management in a sustainable way are concentrated in order to achieve organizational goals and business strategy is fully supported by sustainable HR function⁶⁷.

According to the World Business Council for Sustainable Development (WBCSD) many companies relate some their core objectives to sustainable development goals:

- ✓ “find ways of doing business without threatening the environment
- ✓ create value, sustain performance and long-term success
- ✓ obtain legitimacy for managerial action (‘license to operate’)
- ✓ strengthen a company's reputation and image
- ✓ create accountability and transparency
- ✓ improve quality of life
- ✓ create trust and trustworthiness” (Ehnert, 2009b, p. 430).

Sustainable goals may be considered within the framework of SHRM and STHRM. However, a relevant difference between SHRM and STHRM may be related to the importance of every dimension of sustainable development and the way that tensions between objectives related to dimensions of sustainable development are managed.

⁶⁷ Unfortunately, the last stage, which is the most desirable one in order to apply in the functional processes of the organization, is the rarest one to see in the companies everyday practices (Freitas, Jabbour, & Santos, 2011).

Since organizations usually have multiple goals, the ways of achieving them may provoke the dilemma whether objectives related to one dimension are more preferable than objectives related to the others.

Those kind of tensions could occur in many more divergent situations such as employment management (Aust et al., 2017; Ehnert, 2006), when the employee values for sustainable development are different and conflicting, when the organization goes through the process of renewal and innovation change, when the organization is faced with the plethora of competing organizational goals because of stakeholder demands such as biodiversity conservation, climate change, public health, education and/or poverty alleviation, to mention just a few (Boxall, 2007; Hahn, Figge, Pinkse, & Preuss, 2018). Some examples of such tensions may be the desire for short-term profits (making retrenchments and downsizing) versus long-term HR development (Ehnert, 2006); financial performance or social legitimacy (Aust et al., 2017); local vs global structures of the company (Keegan, Brandl, & Aust, 2018) including production, such as producing in a local environment employing local workers or producing in countries where the labor cost will be lower, however, not all working rights will be respected (Keegan et al., 2018).

Tensions or goal conflicts happening in the organization (Brix-Asala, Geisbüsch, Sauer, Schöpflin, & Zehendner, 2018) of economic, environmental and social dimensions can be solved in different ways (Van der Byl & Slawinski, 2015). Prior research offers four different approaches (Van der Byl & Slawinski, 2015): i). win-win approach, ii). trade-off approach, iii). integrative approach, and iv). the paradox perspective.

The win-win approach resolves tensions through seeking the reconciliation between socio-environmental and economic goals aligning and optimizing sustainability elements. The view it adopts is instrumental, which means that the economic focus is on the shareholders and profit maximization (Van der Byl & Slawinski, 2015). It means that if there is an improvement in one sustainable dimension, e.g., economic, there should be an improvement in the others too. At least, there should be no diminishing performance in the others (Bonacchi & Rinaldi, 2007). The approach could be witnessed during the gains in one domain – the improvement in the others should be present (McWilliams & Siegel, 2010)

The trade-off approach claims that tension between goals is a conflict where one dimension should be chosen over the other. It also holds the instrumental view, however, in comparison with the win-win approach, the trade-off approach could be defined as a win-lose perspective where the loss in economic firm performance results in gain in sustainable performance (Van der Byl & Slawinski, 2015). Trade-offs in this case are depicted as “an exchange of one thing in return for another” (Angus-Leppan, Benn, & Young, 2010, p. 231) or the acceptance of a small loss in the economic dimension in order to gain the considerable benefit in social and/or economic dimensions, which will be a contribution to the corporate sustainable development (Hahn et al., 2018).

The integrative approach prefers the harmony and balance between dimensions of sustainable development where the attention is shifted from economic to social or/and environmental elements (Van der Byl & Slawinski, 2015). The integrative approach does not favor any of the dimensions assuming that there is a causal relationship between firm financial performance and contributions to the social and environmental dimensions of sustainability (Gao & Bansal, 2013). The approach changes the weight of importance from economic dimension to the social and environmental ones balancing all of them together. On the other hand the approach does not clearly show how to address tensions (Van der Byl & Slawinski, 2015).

The paradox perspective (Hahn et al., 2018; Quinn & Cameron, 1988; Schad, Lewis, Raisch, & Smith, 2016; Smith & Berg, 1987) looks for the understanding of tensions accepting and exploring the very nature of them (Van der Byl & Slawinski, 2015). A paradox is defined as “persistent contradiction between interdependent elements” (Schad et al., 2016, p. 6). “The paradox perspective provides the conceptual foundations for an approach to corporate sustainability that accepts tensions between economic, environmental, and social concerns that reside at different levels and operate on different temporal and spatial scales in order to achieve more substantive business responses to multiple sustainability challenges” (Hahn et al., 2018, p. 237).

The paradox perspective seeks long-term solutions to the tensions trying to understand them rather than eliminate them, since the elimination of the tension may solve the problem in the short-run making it persistent in the future (Van der Byl & Slawinski, 2015). The paradox may be solved by the application of generic strategies: i). opposition – accepting and embracing of the paradox learning to live with it (keeping separate two conflicting dimensions), ii). spatial separation – clarifying levels of analysis by attending interrelated contradictions (putting both dimensions onto two different levels such as micro and macro or individual and society), iii). temporal separation – taking time into account in order to manage both levels of the paradox, iv). synthesis – introducing new perspectives that eliminates and solves the paradox (Poole & Van de Ven, 1989).

With regard to the importance of sustainable development dimensions, all the visions of STHRM explicitly or implicitly underline the same thing: the importance of the social and environmental outcomes of the organization for STHRM, not only the economic outcome (Kramar, 2014). As seen in SHRM definitions: “in practice, environmental and social dimensions support the success of the economic dimension [in SHRM] ... [while in STHRM social and environmental dimension] explicitly can impose limits to how economic success is achieved” (Carballo-Penela, 2017 personal communication; Hahn et al., 2018). Hence, the central concern of SHRM is the contribution to HR policies to the financial performance of organizations. From this perspective, improving social and environmental performance are just means for improving organizational financial performance. In other words, SHRM assume the supremacy of one stakeholder, the owners of the organization. For the STHRM approach, improving social and environmental performance are also central concerns and valuable for their own sake (Kramar, 2014).

In the case of SHRM⁶⁸, given the dominance of the economic bottom line over the social and environmental ones, the goals of the last two dimensions would be met until the point of minimum necessity to fit into sustainable matters, while the economic bottom line would be pushed to a maximum in order to increase profits (Ehnert et al., 2014). The SHRM strategy would eliminate the dilemmas where the concerns would not contribute to any business benefits, trying to align environmental and social aspects with the financial ones to eliminate tensions (Hahn et al., 2018): all the means and organizational resources are striving to achieve maximum profits.

These conceptions have implications when tensions between objectives related to dimensions of sustainable development are managed. While the win-win approach and trade-off approach could be in line with the primacy of economic dimension, integrative and paradox perspectives are more difficult to consider from the SHRM perspective. As rooted in business case logic, SHRM would limit the potential contribution of forms to sustainable development, since it establishes a dominant role for economic dimension over environmental and social concerns (Hahn et al., 2018).

Win-win approach, trade-off approach, integrative and paradox perspectives could be in line with STHRM principles⁶⁹. In particular, researchers have recently emphasized the role of the paradox perspective as an approach that “creates leeway for superior business contributions to sustainable development because it regards environmental and social concerns as an end in themselves, not just as a means to the end of profit maximization” (Hahn et al., 2018, p.235).

Some recent studies (Aust et al., 2017; Ehnert, 2009c; Keegan et al., 2018) have already underlined the role of paradox perspective in handling HRM tensions under the STHRM vision⁷⁰. They note that from the STHRM perspective HRM managers handle tensions looking for alignment between different external and internal contingencies, which suggests trade-offs between opposite goals. The paradox view assumes the dynamic nature of tensions which means that HR managers are confronted with multiple simultaneous, contradictory and interrelated tensions that persist over time. Managing tensions through iterative or alternate responses in a dynamic way may be more effective than handling tensions via finding optimal fit (Aust et al., 2017).

From the graphical point of view, Figure 1.2 we have seen in Chapter I helps to understand the differences between STHRM and SHRM when dealing with tensions occurring between sustainable development goals. The first image of concentric circles, where economy is in the middle of the circle making all other issues roll around it, would be in line with SHRM principles, where economic goals are usually acting as a dominant matter that would be achieved even at the cost of the other two pillars.

⁶⁸We understand SHRM in the same way as Aust, Brandle, Keegan, & Lensges (2017) define pluralist strategic human resource management. From this perspective, tensions in human resource systems are primarily viewed as potential threats to performance, competitive advantage and business financial survival.

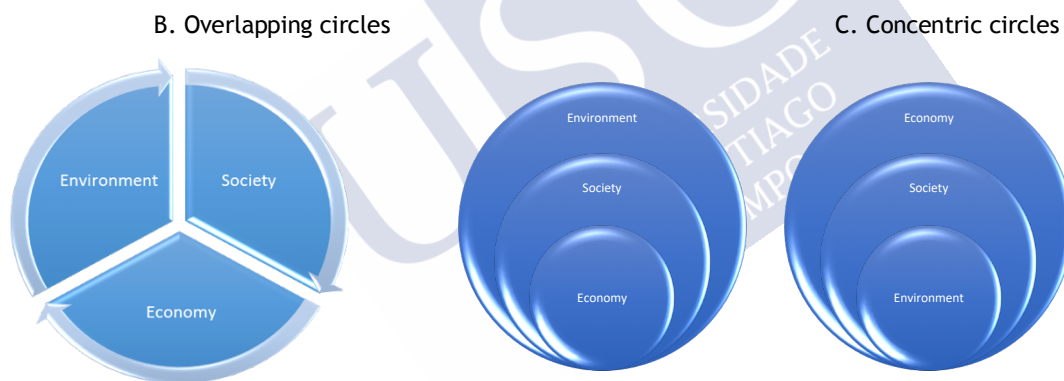
⁶⁹ Trade-off approach could be considered, if environmental/social dimensions come before the economic dimension.

⁷⁰ Ehnert (2009c, p. 175) developed a very useful paradox framework for sustainable HRM.

Figure 1.2B, where the dimensions are in a harmony between each other and contribute to the development of each other, being completely equal acting as one organism, where no dimension is dominant and the goals of each of the dimensions are considered of equal importance and value could represent the STHRM approach. This graphical representation would be fair from the perspective of equality and coexistence.

However, as there are different interpretations of the sustainable development concept, STHRM can be also understood from different perspectives. From a strong sustainability view, STHRM can also be represented by the figure where environmental dimension is prevailing (in the center of the circles)⁷¹ in Figure 1.2C. Since, without the environment, there would be no life in the form we have it now in the long-term, Figure 1.2C is the only possible representation of resolution of tensions that could provide long term survival. Being treated as a real bottom line, the environmental dimension is not damaged when achieving social goals and the economy exists to support needed quality of life (Chambers, Simmons, & Wackernagel, 2000).

Figure 1.2 (fragment, repeated from Chapter I). Three Visual Representations of Sustainable Development: Pillars, Circles, Interlocking Circles



Source: The World Conservation Union (2006).

Another difference between SHRM and STHRM deals with the HR renovation. According to Ehnert (2009c, p. 74), “sustainable HRM is the pattern of planned or emerging human resource strategies and practices intended to enable organizational goal achievement while simultaneously reproducing the HR base over a long-lasting calendar time and controlling for self-induced side and feedback effects of HR systems on the HR base and thus on the company itself”. The definition embraces two STHRM functions: the first of which is strategic planning, and second – human resource renovation through usage of skilled human resources efficiently and keeping new talented people coming to the organization.

⁷¹ The social dimension could also be placed in the center of the circles; however, the prior literature does not emphasize this representation of STHRM a lot.

Moreover, STHRM forces the company to place value on human capabilities and recognize them, without their continuous abuse. This could be described as strong sustainability referred to the human resources and their application to the business matter: the employees development and well-being should be put to the important place in the organization (Wilkinson, Hill, & Gollan, 2001). “Managers confront the challenge of aligning the interests and needs of their business with those of their most valuable resource, their staff, so that business success can be achieved and maintained” (Pears, 1998, p. 1). On the other hand, SHRM is mainly focused on the link between human resources and performance without long-term future human resource development (Ehnert, 2009c), which could be another difference between two concepts.

One more difference between SHRM and STHRM can be seen through how the two concepts deal with the problem of a shortage of skilled labor, which emerged in many countries because of two reasons: i). globalization and new technologies raised the need for more qualified personnel and ii). employees are unwilling to work for any companies, being “picky” when selecting the job and paying attention to the working conditions, work-life balance and how sustainable and socially responsible the company is (Ehnert, 2009c).

The STHRM is focused on development of the future HR within the organization and interacting with the community and government for HR supply (Kira, 2003, 2005; Thom & Zaugg, 2004) because of the lack of ability of corporate environments to provide skilled labor (Ehnert, 2009c). Here, the key aspect is the social responsibility as sustainable development in business that adds value to the attraction and retention of the new employees to the organization (Ehnert, 2009c). In addition, some HRM activities could have an impact on the society where the firm operates, not only the organization itself: the situation when the firm puts social costs (externality) of downsizing and retrenchment on government and community (Mariappanadar, 2003). Hence, “from a sustainability perspective, a company does not only have to ensure that it attracts and retains a talented workforce today but also that it sustains access to the desired groups of people and retains a healthy and productive workforce over time” (Ehnert, 2009c, p. 6), which is especially true for the globally operating companies.

Also, the lack of skilled personnel requires investments in attraction and retention of proficient labor and in the development of efficient and effective HR practices to buildup human resources in the future. From a STHRM perspective, HRM would sacrifice economic gains to foster skilled human resources of today and of tomorrow in the long-run, whereas SHRM is more focused on the economic gains.

In turn, the STHRM problem of HR regeneration is explained through sustaining employee “abilities, willingness to perform, self-regulation skills, and health” that is dependent on individual physical and psychological burdens (Ehnert, 2009c, p. 75), concentrating on the employee relationships as HR exchange relationships. Here the problem is solved through regeneration and qualification of HR. As was previously highlighted, preserving, regenerating or strengthening specific resources is the main goal of the sustainable development (Wilkinson et al., 2001). Therefore, STHRM is

focused on the regeneration and qualification of a firm's human resources, which also requires investments and sacrifice of economic benefits for the social dimension. Since the core principle of SHRM is unwillingness to sacrifice economic dimension for other dimensions, this can be a difference with regard to STHRM.

3.3. Green HRM and employees' green behavior

3.3.1. The concept of Green HRM (GHRM)

Employees' behavior plays an important role in overall organizational greening. Some examples of the employee behavior that contribute to the company greening (Rawashdeh, 2018) would be gathering information and/or using the existing organizational processes in order to improve their environmental performance, such as the maintenance of the current company equipment, material reuse, turning off machinery, equipment and computers when not in use (Fryxell & Lo, 2003), recycling wastes (Renwick, 2018), and presentation of ecological ideas for future environmentally friendly organizational improvements (Bombiak & Marciniuk-Kluska, 2018).

The concept of GHRM (Table 3.2) is a new important topic under research focus and a requirement of 21st century (Jain & D'lima, 2018) because many firms are moving towards environmentally sustainable practices rather than those that exploit the environment (Mazur, 2016). According to some prior literature, the green HRM can be found within the framework of sustainability debate, forming a part of STHRM, in particular, of its environmental dimension. However, the term can be also considered from a SHRM perspective. The scholars from both SHRM and STHRM fields have researched it. Differences between both approaches are more related to the importance of the environmental dimension of sustainable development or the purpose of the green HRM practices, than to the meaning of GHRM concept and HR practices involved in GHRM, i.e. the same green HR policy, which produces the same result, after being implemented and can be considered from SHRM and STHRM perspectives. SHRM will consider it as a mean to improve financial performance, while from STHRM point of view, it has value for its own sake, as improving environmental performance is an objective in itself as it is a condition for long term business survival.

Hence the following lines simply try to summarize what researchers understand by GHRM and its role in promoting employees' green behavior, without considering if that happens under the framework of SHRM or STHRM perspective.

The term "Green HRM" is used to define the policies and practices of the organization aimed at contributing to the corporate environmental agenda (Pillai & Sivathanu, 2014), being "the planet-component of triple bottom line" (Mazur, 2016, p. 3). Those policies and environmental practices may be promoted by an organizational management team or performed by employees themselves.

Table 3.2. Definitions of Green HRM

AUTHOR	DEFINITION
Bombiak & Marciniuk-Kluska, 2018, p. 5	"A new approach to the realization of the HR function, the nature of which is to include ecological objectives in all HRM sub-areas, from employment planning, through recruitment, selection, employee motivation and development, to their evaluation and influence on working conditions"
Jackson et al., 2011, p. 101	"Links between HRM and environmental management"
Mandip, 2012, p. 244	"Green human resources refer to using every employee touch point/interface to promote sustainable practices and increase employee awareness and commitments on the issues of sustainability. It involves undertaking environment-friendly HR initiatives resulting in greater efficiencies, lower costs and better employee engagement and retention which in turn, help organizations to reduce employee carbon footprints by the likes of electronic filing, car-sharing, job-sharing, teleconferencing and virtual interviews, recycling, telecommuting, online training, energy-efficient office spaces etc."
Muster & Schrader, 2011	Green HRM is the implementation of environmental management into HR
Opatha & Arulrajah, 2014, p. 104	"Green HRM is referred to all the activities involved in development, implementation and on-going maintenance of a system that aims at making employees of an organization green. It is the side of HRM that is concerned with transforming normal employees into green employees so as to achieve environmental goals of the organization and finally to make a significant contribution to environmental sustainability. It refers to the policies, practices and systems that make employees of the organization green for the benefit of the individual, society, natural environment, and the business."
Pillai & Sivathanu, 2014	Definition of the policies and practices of the organization aimed to contribute to the corporate environmental agenda
Ren, Tang, & Jackson, 2018, p. 778	"Phenomena relevant to understanding relationships between organizational activities that impact the natural environment and the design, evolution, implementation and influence of HRM systems"
Renwick, Redman, & Maguire, 2013, p. 1	"The HRM aspects of environmental management"
Shen, Dumont, & Deng, 2018, p. 1	"Green human resource management (green HRM) refers to a set of HRM practices that organizations adopt to improve employee workplace green performance."
Yusoff, Nejati, Kee, & Amran, 2018, p. 3	"Green HRM can be defined as the portion of the sustainable HRM that engages with the requirements associated with environmental sustainability"

Source: author's own elaboration based on the articles mentioned in the current table.

As can be seen from the definitions, the concept of green HRM is presented as a new approach based on the i). development of the environmentally friendly working conditions, ii). motivation of employee attitudes towards the environment at work, i.e. the creation of a green workforce (Bombiak & Marciniuk-Kluska, 2018; Mohrman & Worley, 2010; Whitmarsh & O'Neill, 2010), iii). pursuit of the sustainable use of the resources of the organization, iv). establishment of environmental support including environmental organizational culture (Bombiak & Marciniuk-Kluska, 2018; Mampira,

2013; Zoogah, 2011), and v). improvement of overall organizational environmental performance (Ren et al., 2018). All those aspects could result in better corporate image (Shen et al., 2018), competitive advantage on the market (Bombiak & Marciniuk-Kluska, 2018; Chodyński et al., 2008; Ziółko & Mróz, 2015) and the establishment of green organizations with green organizational processes (Bombiak & Marciniuk-Kluska, 2018; Egri & Hornal, 2002; Norton et al., 2017), including organizational sustainability, among others.

HR managers could boost the positive environmental activities of the employees through various processes in order to achieve green culture and green strategy of the organization (Dögl & Holtbrügge, 2014). Several HRM functions, practices and activities can be designed in line with green management perspective (please see Table 3.3 for the examples):

- *Green job analysis and design* is the creation of environmentally-friendly jobs within the framework of environmental management (Bombiak & Marciniuk-Kluska, 2018) that specifies tasks, duties and responsibilities related to the environmental management and protection (Renwick, Redman, & Maguire, 2008, 2013; Wehrmeyer, 1996).
- *Green employee planning* is the analysis of the number and types of employees needed to implement environmental management into company business-making process (Arulrajah, Opatha, & Nawaratne, 2015).
- *Green recruitment*. Recruitment is the process of acquiring the personnel at a minimum cost to be able to satisfy the need of human resources of the organization via defining the requirements of the job (job description preparation and terms and conditions of the employment) and attracting needed candidates (Armstrong, 2003), in this case, the needed personnel would be green human resources. A green employer can attract more talented workforce (Renwick, Redman, & Maguire, 2013), since the graduates take a company reputation as a criterion for choosing a company as a future employer when applying for a job (Renwick, Redman, & Maguire, 2008; Wehrmeyer, 1996), where the company image is promoted by “green-collar” workers (Renwick et al., 2013). In addition, green employees may promote their environmental values in the organization and behave in pro-environmental role when it comes to non-required tasks.
- *Green selection*. Selection is the process of choosing the most suitable candidates to fill the needs of the organization (Armstrong, 2003). A green selection process takes into account employee concern towards environment during the selection process such as interviewing and testing candidates (Arulrajah et al., 2015).
- *Green induction* is needed for new employees to make sure they understand the organizational environmental management and the objectives related to it (Wehrmeyer, 1996), the selected induction method may be general or specific job related (Arulrajah et al., 2015).

- *Green performance evaluation* is measuring employee green performance on the job, which is one of the major functions of green HRM, because it shows if environmental management practices are actually working (Arulrajah et al., 2015).
- *Green training and development*. The training and development is “the use of systematic and planned instructions and development activities to promote learning” (Armstrong, 2003, p. 549) making sure that the organization has a competent staff in accordance with its present and future goals. If the organization wants to be sustainable and environmentally friendly, the environmental training should be included in other training techniques of the organization (May & Flannery, 1995).
- *Green rewards management*. Reward management in general “is concerned with the formulation and implementation of strategies and policies that aim to reward people fairly, equitably and consistently in accordance with their value to the organization” (Armstrong, 2003, p. 613). In this case, green rewards management is one of the key functions of green HRM (Arulrajah et al., 2015) that rewards green performance by the employees for motivation to behave in an environmentally friendly way. Green rewards management establishes organizational priorities towards greening that are aligned with firm strategy and HR strategy.
- *Green discipline management* is a pre-requisite for the organization to be able to implement environmental management principles (Wehrmeyer, 1996). Any discipline management includes measures of punishment and disciplinary sanctions used to prevent undesirable behavior by employees such as informal warning, formal warning and further disciplinary action if the employee fails to reach the required organizational standards (Armstrong, 2003), in this case, if the employee is violating green organizational principles some of the described measures will be applied.
- *Green health and safety management* is traditional health and safety management plus the environmental aspects included such as biodiversity protection and community support initiatives, it ensures the availability of green workplaces for all organization employees (Arulrajah et al., 2015).
- *Green employee relations*. Employee relations “consist of all those areas of human resource management that involve relationships with employees – directly and/or through collective agreements where trade unions are recognized [...being] concerned with generally managing the employment relationship” (Armstrong, 2003, p. 745). In the case of green employee relations, they are critical in implementing environmental management principles and objectives (Arulrajah et al., 2015) because of the support of trade unions in doing so, for instance, providing opportunities to the unions to negotiate with management about green workplace agreements (Renwick et al., 2008, 2013).

Table 3.3. Green policies, practices and procedures

HRM FUNCTION	GREEN POLICIES, PRACTICES AND PROCEDURES
Green job analysis and design	<ul style="list-style-type: none"> - identifying staff exposed to harmful substances/emissions (Wehrmeyer, 1996) - including environmental dimension as a duty on job description (Opatha & Arulrajah, 2014) - including green competencies as a special component of job specification (Opatha & Arulrajah, 2014) - including environmental, social, personal, and technical requirements of the organizations in job descriptions and person (job) specifications as far as possible and put into effect (Wehrmeyer, 1996)
Green employee planning	<ul style="list-style-type: none"> - engaging in forecasting number of employees and types of employees, needed to implement the corporate environmental management initiatives/programs/activities (e.g., ISO 14001, cleaner production, responsible care etc.) (Arulrajah et al., 2015) - engaging in deciding strategies to meet the forecasted demand for environmental works (e.g., appointing consultants/experts to perform energy or environmental audit etc.) (Arulrajah et al., 2015)
Green recruitment	<ul style="list-style-type: none"> - employing personnel that share firm's environmental values and are committed to participate in related activities (Renwick et al., 2013) - to include environmental criteria in recruitment messages (Opatha & Arulrajah, 2014) such as green branding, pro-environmental image, green job description, incorporation of green knowledge and skills to the job description of all jobs, not only green positions (Siyambalapitiya et al., 2018)
Green selection	<ul style="list-style-type: none"> - selecting applicants who are sufficiently aware of greening to fill job vacancies (Opatha & Arulrajah, 2014) - selecting applicants who have been engaging in greening as consumers under their private life domain (Opatha & Arulrajah, 2014) - environmental questions in selection methods, consideration and evaluation of candidates according to their awareness of environmental problems, knowledge of green technologies, commitment and sensitivity to environmental issues (Siyambalapitiya et al., 2018)
Green induction	<ul style="list-style-type: none"> - implementing green introduction to the organization and green orientation for all employees (Siyambalapitiya et al., 2018) - make new employees familiar with greening efforts of the organization (Opatha & Arulrajah, 2014) - develop induction programs showing green citizenship behavior of current employees (Opatha & Arulrajah, 2014)
Green performance evaluation	<ul style="list-style-type: none"> - evaluating employee's job performance according to green-related criteria (Opatha & Arulrajah, 2014) - establishing organization-wide environmental performance standards (Renwick et al., 2008) - including a separate component for progress on greening in the performance feedback interview (Opatha & Arulrajah, 2014) - analyzing environmental incidents (Renwick et al., 2013; Wehrmeyer, 1996) - using environmental responsibilities and communication of environmental concerns and policies (Renwick et al., 2013; Wehrmeyer, 1996) - establishing environmental audits and waste management (Renwick et al., 2008)
Green training and development	<ul style="list-style-type: none"> - collecting relevant organizational waste data (May & Flannery, 1995) - raising eco-literacy and environmental expertise among firm employees (Roy & Thérin, 2008) about environmental goals of the organization, technical standards and regulatory requirements (Jackson, Renwick, Jabbour, & Muller-Camen, 2011) - introducing environmental aspects of green training and development (health and safety, waste management, environmental law issues, etc.) (Muster & Schrader, 2011; Siyambalapitiya et al., 2018) - doing training needs analyses to identify green training needs of employees (Opatha & Arulrajah, 2014)

HRM FUNCTION	GREEN POLICIES, PRACTICES AND PROCEDURES
Green rewards management	<ul style="list-style-type: none"> - giving financial incentives to employees for their good green performance of job (Opatha & Arulrajah, 2014) - giving non-financial rewards (e.g., praises, recognitions, transport benefits), assistance to green events to employees for their greening (Opatha & Arulrajah, 2014; Ramus, 2002; Renwick et al., 2013) - establishing recognition programs including the special compensation for possessing the certain knowledge such as of environmental legislation of illegal emissions (Ramus, 2002; Renwick et al., 2013) - establishing pollution prevention pays program to earn recognitions for green projects (Jackson, Renwick, Jabbour, & Muller-Camen, 2011) - using performance-related pay system for successful implementation of environmental management practices (Renwick et al., 2008) - giving perks and rewards for employees for environmental involvement, green activities and environmental performance (Siyambalapitiya et al., 2018)
Green discipline management	<ul style="list-style-type: none"> - formulating and publish rules of conduct relating to greening (Opatha & Arulrajah, 2014) - developing a progressive disciplinary system to punish employees who violate the rules of green conduct (Opatha & Arulrajah, 2014) - establishing the system of punishments such as warnings, suspensions, criticisms (Renwick et al., 2013), penalties and warnings for workers who does not respect and conform with environmental organizational culture (Bombiak & Marciniuk-Kluska, 2018) in order to lead to environmental improvements (Renwick et al., 2013) - setting penalties for noncompliance on targets in environmental management (Opatha, 2013) - setting penalties or dismissal for environmental management breaches (Opatha, 2013)
Green health and safety management	<ul style="list-style-type: none"> - ensuring green workplace for all (Ditz et al., 1995) - creating various environmental related initiatives to reduce employee stress and occupational disease caused by hazardous work environment (Ditz et al., 1995) - creating and implementing strategies (e.g., green factory/green zone) to maintain a conducive environment to prevent various health problems/ in order to improve health and safety of employees (Ditz et al., 1995)
Green employee relations	<ul style="list-style-type: none"> - providing opportunities to the employee to involve and participate in green suggestion schemes (Renwick et al., 2008, 2013) - introducing green whistle-blowing and help-lines, providing training to the union representatives in environmental management (Renwick et al., 2008, 2013) - making joint consultations in solving environmental issues of the organization (Renwick et al., 2008, 2013) - gain sharing in relation to environmental initiatives or programs - recognizing union as a key stakeholder in environmental management (Renwick et al., 2008, 2013) - providing opportunities to the unions to negotiate with management about green workplace agreement (Renwick et al., 2008, 2013)

Source: author's own elaboration based on Opatha & Arulrajah (2014) and Jackson et al. (2011) and the work of the authors mentioned in the table.

The policies, practices and procedures mentioned in Table 3.3 can have a direct effect on employees' pro-environmental behavior at work. Some of them, such as green discipline management, are prescribed practices that control employee green behavior in the workplace obliging certain behavior or receiving punishments if not done so. Those control mechanisms clearly lead to employee obligatory or prescribed pro-environmental behavior. However, prescribed practices may also lead to negative consequences (e.g., negation, unwillingness to perform pro-environmental behavior when not watched and controlled, unwillingness to involve such behavior into self-

identity, done only because they have to be done) that are undesirable (Vallerand, 2015). In some cases, forced behavior negatively affects the brain resulting in anxiety (Leasure & Jones, 2008) and leading to cognitive dissonance (Ciocirlan, 2017). In the case of green rewards management, directly rewarded pro-environmental behavior is only performed when the reward is present⁷² (Lülfs & Hahn, 2013). Such behavioral patterns may be absent when not controlled or rewarded directly.

On the other hand, some other practices such as green training may result in voluntary green behavior⁷³ because of the knowledge that an employee possesses after such training regarding the environmental situation. In addition, selection of the personnel who are fully aware of greening and the development of induction programs showing green citizenship behavior of current employees (Opatha & Arulrajah, 2014), may help in promoting formal policies and practices towards greening because of the establishment of green organizational culture and atmosphere that may encourage employees to behave in pro-environmental way voluntarily (Cohen, Taylor, & Muller-Camen, 2012).

Hence, the promotion of environmental behavior at work by establishing organizational policies and organizational culture is a half-way along the road to corporate greening (Lülfs & Hahn, 2013). A significant part of the organizational greening lies on initiatives and volunteer behavior of the employees towards eco-friendliness. Employee involvement in environmental initiatives is considered even more crucial for success in organizational greening (Remmen & Lorentzen, 2000).

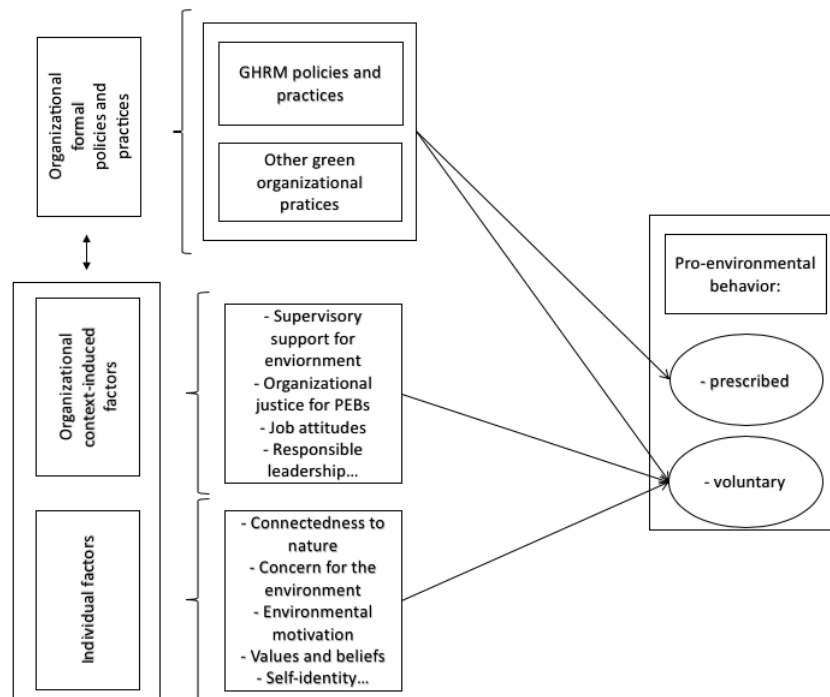
In addition to the factors derived from organizational formal policies and practices (Harvey, Williams, & Probert, 2013), there are also other factors that may influence employees' voluntary pro-environmental behavior at work.

Some of those other factors are organizational context-induced such as job satisfaction and work-life balance programs (Melo et al., 2018), supervisory support for environmental initiatives (Cantor, Morrow, & Montabon, 2012), perceived supervisory support (Lülfs & Hahn, 2013), perceived colleague support (Paillé et al., 2016). They could indirectly influence the employees' "compliance with green objectives and reduces the risks of the expression of discontent by, for example, acts of industrial sabotage" (Harvey et al., 2013, p. 154).

⁷² Apart from rewards, pro-environmental behavior may be incentivized also by governments that may initiate, for instance, subsidy schemes to promote certain types of consumption behaviors. For example, in Malta solar panel grants were offered by government in order to promote switching to solar (clean) energy instead of energy based on fossil fuels (Briguglio & Formosa, 2017).

⁷³ Volunteer behavior is the behavior that is creative and liberated and lead to willingness to perform it even when not watched by the supervisors (Vallerand, 2015). That kind of behavior is desirable and durable.

Figure 3.1. Factors⁷⁴ affecting the workplace pro-environmental behavior of employees (prescribed and voluntary)



Source: author's own elaboration.

Individual factors are also very important in the process of formation of pro-environmental behavior at work. Sometimes employees with a pro-active environmental profile (e.g., pro-environmental activists) are the source of pressure towards organizational greening, particularly, in the case of heavy polluting companies (Berry & Rondinelli, 1998), which could also be considered influential for fellow colleagues. These workers can form employee green teams⁷⁵ that are involved in environmental management activities and sometimes are initiatives of trade unions that are highly interested in promoting green ideas such as decreasing the pollution from workplaces, reducing waste and energy usage (Renwick et al., 2013).

Developing pro-environmental behavior at home can also help to promote similar behavior at work⁷⁶ (Muster & Schrader, 2011). “While Green HRM focuses on

⁷⁴ Other green organizational practices may include some practices such as green supply management (Gavronski, Klassen, Vachon, & Nascimento, 2011), green supply chain management (Jabbour & de Sousa Jabbour, 2015), green accounting (Ditz, Ranganathan, & Banks, 1995), green marketing (Garg, 2015; Martínez, Matute, & Fraj, 2013), green product development (Chen & Chang, 2013).

⁷⁵ Also, it is proved that there is a positive correlation between company's reputation and environmental performance and employee green teams (Dangelico, 2015).

⁷⁶ Private life and working life are linked according to: i). the conflict model – private life domain and working life domain imbalances because of the conflicting needs of both (time, energy, attention) resulting in stress, role conflicts and negative impacts on both domains; ii). the enrichment – the achievements in one domain may provoke the positive results in the other enriching them both; iii). the spillover model – “success, achievements, accolades and recognitions at work place often get translated to positive behavior, happiness and self-confidence in personal life. On the other hand, negative experiences in private life may lead to low self-esteem and low performance level at the workplace.” (Datta, 2015, p. 85); iv). the compensation model – negative experience in one domain may lead to the positive behavior in the other because of the

promoting employees' environmental behavior in the company, employees carry on with their consumption practices in private life" (Muster & Schrader, 2011, p. 143). Boiral supports the idea that many of private life activities such as saving water and energy, using less polluting transportation means and recycling, could also be repeated at work and could meet the company's green behavior pattern requirements (Boiral, 2009).

The analysis of the factors which lead to pro-environmental behavior is still more complex, since there is a bidirectional relationship between organizational formal policies and practices and the pool of context induced and individual factors.

Some recent studies show that green HRM practices and policies besides influencing employees' green behavior directly, may facilitate some employees' green behavior through the organizational context-induced and individual factors (Kim, Kim, Han, Jackson, & Ployhart, 2017; Pinzone, Guerri, Lettieri, & Redman, 2016; Renwick, 2018).

The firm's internal policies, rules and regulations influence the atmosphere among employees regarding a certain topic that may have an impact on working conditions (Bombiak & Marciniuk-Kluska, 2018). Because of the formal policies and practices towards green behavior, the co-workers may be engaged in such practices. Since learning by observing is important in the development of certain behavior (Bandura, 1977), pro-environmental behavior from green HRM practices may induce other green behavior of employees. Also, formal green policies and practices may motivate the willingness to learn about ecological problems raising employee awareness on the topic and forming environmental values.

In turn, organizational context-induced and individual factors may also influence the formation of formal green HRM policies and practices. For instance, if the employees possess high levels of environmental passion and environmental values and attitudes (individual factors), they may encourage the management to promote environmental policies. For instance, employees can also propose their managers the establishment of recycling points in the offices of the organization or designing environmental training programs and information meetings to raise environmental awareness. Those employee initiatives may result in the establishment of formal green regulations or policies on environmental issues in the company by the management.

3.4. Pro-environmental behavior (PEB)

Behavior in general could be described as a product of actors' willingness and ability to perform certain actions, due to values, norms and beliefs, with the contextual factors of an external environment that are out of the actors' control (Blumberg & Pringle, 1982; Norton et al., 2015), such as social norms, organizational requirements and organizational environment.

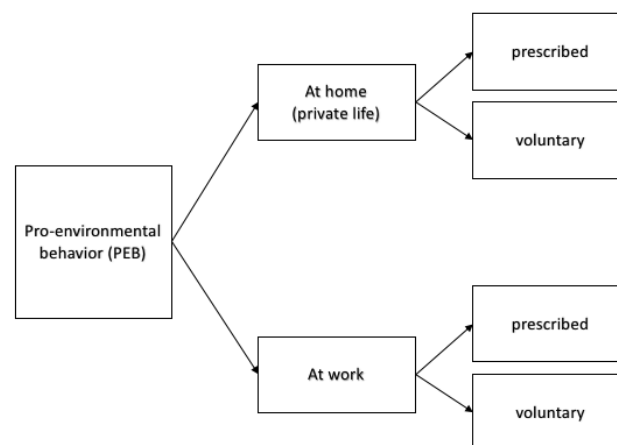
continuous need to compensate the negative experience by positive one (Datta, 2015; Edwards & Rothbard, 2000; Guest, 2002; Lambert, 1990; Rothbard, 2001).

Due to the rising importance of global environmental issues and problems, the significance of environmental sustainability has arisen, because of which researchers have paid attention to pro-environmental behavior. The concept of PEB is a collective term that describes the series of actions directed to protect and preserve the Nature, harm the environment as little as possible or even make it better (Steg & Vlek, 2009). It is seen as a mixture of self-interest and concern for others (environment, other people, coming generations) (Bamberg & Möser, 2007).

An overall general definition could be the following: “actions contributing to environmental conservation, or human activity intended to protect natural resources, or at least reduce environmental deterioration” (Juárez-Nájera, Rivera-Martínez, & Hafkamp, 2010, p. 687). As could be seen from the definition, the concept of pro-environmental behavior includes all behavioral traits aimed at protecting the environmental situation wherever the behavior is performed.

The main constructs where the term was studied could be divided into pro-environmental behavior at home or private life PEB (Muster & Schrader, 2011) and pro-environmental behavior at work (Boiral, Paillé, & Raineri, 2015; Ones & Dilchert, 2012b; Ones, Wiernik, Dilchert, & Klein, 2018; Paillé & Boiral, 2013) (Figure 3.2).

Figure 3.2. Classification of types of pro-environmental behavior



Source: author's own elaboration.

3.4.1. Private life pro-environmental behavior

Pro-environmental behavior at home includes all behavioral activities performed out of the workplace. Private life pro-environmental behavior could be described as a behavioral pattern towards the environment the person applies to the everyday activities including specific consumption patterns, models of living and recycling habits (Muster & Schrader, 2011; Vining & Ebreo, 1992). Examples of such private life PEB could be recycling cans, bottles, paper and plastic (Robertson & Barling,

2013), using electricity and water efficiently (Mweemba & Wu, 2010), buying eco-labelled products (Chaubey, Patra, & Joshi, 2011) or products made from recycled items (Roberts & Bacon, 1997), regulating heating during cold months so that it is not too high, preferring public transport instead of personal car (Milfont & Duckitt, 2004), talking to friends and family about the importance of eco-friendly consumption patterns (Roberts & Bacon, 1997).

Private life pro-environmental behavior can be forced or voluntary. There are several areas from where forced pro-environmental behavior may emerge such as governmental restrictions and expectancy of the society.

Governmental regulations, for instance, with regard to carbon emissions and restrictions on personal vehicles⁷⁷ can be set, affecting private life behavior as well as workplaces in general, if the response level⁷⁸ of the public to climate change is low. Such restrictions are important in order to increase public “engagement” with the issue of climate change (Ockwell, Whitmarsh, & O’Neill, 2009). Some other examples may include fees for burning domestic waste that cause pollution and/or harm people’s health, penalties for incorrect domestic waste recycling (e.g., Belgium), differentiated city center traffic order (various days for odd and even registration number cars permitted in the city center) or prohibition⁷⁹ of traffic in the city center (e.g., London and Madrid) (Ockwell et al., 2009; Seyfang, Lorenzoni, & Nye, 2007).

We also believe, that on the community level private life pro-environmental behavior may be forced by the application of social pressure. Society’s expectations could oblige the individual to behave in a certain way. The examples of such could be the social pressure of the new pro-environmental neighborhood or environmentally conscious reading club where the individual is a member. However, if that individual does not possess certain self-identity characteristics (Whitmarsh & O’Neill, 2010) of pro-environmentalism, discrepancy may occur and the behavioral traits expected by others would be rejected (John & Robins, 1994).

In addition to prescribed behavior towards the environment, the environmental friendliness of any given individual on a voluntary basis could be described by different patterns such as connectivity with nature, models of living and self-identity.

The connectivity with nature theory (Dutcher, Finley, Luloff, & Johnson, 2007) states that the more an individual feels the same with the natural world around him/her, the more the empathy and compassion towards nature is developed (Dutcher et al., 2007). Similarly, lack of the feeling of connection with nature leads to the alienation from it (Dutcher et al., 2007) and, as a possible result, to unfriendly behavior towards the environment.

⁷⁷ In UK, for instance, domestic travel and energy use count for one third of the overall nation’s carbon emissions (Ockwell, Whitmarsh, & O’Neill, 2009).

⁷⁸ The response level of the public to climate change has consequences and implications when it comes to individual behavior including private life domain (see, for example, Ockwell et al., 2009).

⁷⁹ However, the restrictions have to be set with caution since indirect negative effects may be produced as a result of such restrictions. Because of the traffic limitations, for instance, carbon emissions may increase because people may drive further to avoid the restricted areas resulting in net increase of the emissions (Ockwell et al., 2009).

Apart from connectivity issues, PEB could be learned in private life by the model of living. One of its important characteristics is consumption patterns, being a significant part of private life. The consumption patterns are one of the important descriptions of pro-environmental behavior. Taking into account that the very nature of consumption is connected to resource usage, consumption patterns are environmentally relevant behavior types (Muster & Schrader, 2011). Pro-environmental behavior of consumption patterns is correlated with all four dimensions of environmental concern: i). objective knowledge – the lack of knowledge about the environment may mislead consumer behavior; ii). God and Nature – being least important of the factors, religion may bring the idea of “man over nature” also misleading ecologically conscious consumer behavior; iii). limits to growth – the limits of resources available on the planet lead to the sacrifices for the good of the environment such as recycling, less car usage; iv). adaptation before modification – the change of consumer behavior to help solving environmental issues such as careful product selection according to its environmental impact (Roberts & Bacon, 1997). PEB related to consumption patterns could also include voluntary waste recycling (Briguglio et al., 2016), buying products with eco-labelled packages, not consuming from a company that is not environmentally friendly, avoiding excessive packaging (Roberts & Bacon, 1997), installing clean energy sources at home such as solar energy panels (Briguglio & Formosa, 2017), among others.

The self-identity means the self-understanding of the individual including the behavioral patterns others perceive to be ours or expect us to perform (Whitmarsh & O'Neill, 2010). The phenomena could be explained by self-perception theories stating that an individual performs according to what is typical for the characteristics of that individual and the expectations placed by others (John & Robins, 1994). In addition, if an individual is asked to behave differently from his/her self-identity characteristics, later behavior in the situation tends to be realigned towards his real attitude away from discrepant (asked) behavior (Fazio, Blascovich, & Driscoll, 1992). Self-identity is equally important in the work domain.

3.4.2. Pro-environmental behavior at work

Pro-environmental behavior at work is described by various authors as the concept “that includes all types of voluntary or prescribed activity undertaken by individuals at work that aim to protect the natural environment or improve organizational practices in this area” (Boiral et al., 2015, p. 21). It could be also described as any measurable or definable behavior of the individual that is contributing to the organizational sustainable development goals in the context of the working environment (Ones & Dilchert, 2012a). Following this perspective, pro-environmental behavior at work is workplace behaviors, which impact the natural environment⁸⁰ (Ones et al., 2018).

⁸⁰ In their research Ones, Wiernik, Dilchert & Klein (2018) use the term “employee green behavior” since they believe that concept of pro-environmental behavior embraces only green behavior leaving non-green one apart. Also, employee green behavior consider both prescribed and voluntary workplace behavior, which is one of the main differences of voluntary PEB at work.

Pro-environmental behavior at work is very important to the organization since it contributes to the achievement of the organizational overall greening, i.e. decreasing organizational footprint and making it more environmentally friendly (Boiral, 2009; Robertson & Barling, 2013). They add up to the consistency with a firm's socially and environmentally responsible goals contributing to the sustainable development and success of the organization (Tian & Robertson, 2017) and reducing future environmental degradation and climate change (Kim et al., 2016).

Some examples of employee pro-environmental behavior at work could be recycling paper, printing double-sided when possible, helping colleagues when environmental issues arise, raising environmental awareness among colleagues, participating in projects or events that address environmental issues, suggesting practices to improve environmental performance of the organization, conserving everyday used resources such as water and electricity⁸¹ and turning off lights when not in use (Bissing-Olson et al., 2012; Paillé, Boiral, & Chen, 2013; Whitmarsh & O'Neill, 2010) at work.

The examples of PEB at work mentioned above could be either obligatory or voluntary. The obligatory behavior may result from restrictions made by the organizational policies and practices, including GHRM practices and policies. Some mandatory behavior towards the environment could be included in the formal job description and role expectations or requirements (Table 3.4) (Lülfes & Hahn, 2013).

However, employee involvement in environmental initiatives through obliged behaviors is half-way on the road to corporate greening (Lülfes & Hahn, 2013). Being crucial for success in organizational greening (Remmen & Lorentzen, 2000), a significant part of the organizational greening lies in initiatives and volunteer behavior of the employees towards the environment (Ramus & Killmer, 2007).

This research focuses on the voluntary PEB at work. Voluntary PEB at work includes behavior that “is not organizationally prescribed or mandatory, namely, behavior that is not explicitly included in formal role descriptions, role expectations or job requirements” (Lülfes & Hahn, 2013, p. 4).

It could be categorized as a green personal behavior that involves personal initiative, rather than order, that exceeds organizational expectations from the employee, which may include making environmental interests a priority when making work decisions, also being involved in environmental initiatives, programs, policies, and encouraging others to behave in pro-environmental way (Norton et al., 2015).

⁸¹ The pro-environmental activities in private life and at work are closely linked and sometimes it is very difficult to distinguish between them. Taking public transport instead of using a car on the way to work should be considered as a private life PEB or PEB at work? And shopping eco-labeled packages in a supermarket if it is for taking to work for lunch? The set of scales used in the current research was carefully selected on the basis of previous research, in which researchers share a common opinion. In current research we consider the choices of public transportation vs personal car as PEB at work since it could be incentivized by the organization.

Table 3.4. Distinctions between voluntary and obliged pro-environmental behavior at work

Voluntary PEB	Obliged PEB
Connected with employee job, but not obliged to perform: includes choice situation and depends on the willingness to perform it	Included in detail in job description
Could not be recognized by the official organizational reward system (because not included in the job description)	Requirements of role expectations
Usually are performed with no or minimum external influence on an individual level (by intrinsic desire to perform actions that improve environmental situation)	Included in the management system (forced by shareholder pressure or environmental disaster happened recently)
Decentralized form of the employee behavior	Rewarded or punished by the formal reward system
Future oriented and non-beneficial to the person performing PEB	Beneficial to the person performing PEB because of the organizational reward system

Source: based on the articles of Ciocirlan (2017); Lülfs & Hahn (2013); McCarty & Shrum (2001); Ramus & Killmer (2007); Yuriev, Boiral, Francoeur, & Paillé (2018).

Voluntary PEB at work improves companies' environmental performance, which could lead to firm sustainability, also increasing the firm's competitiveness (Boiral et al., 2015; Chang & Kuo, 2008). The results of implementing voluntary pro-environmental behavior practices could be seen directly (decrease in energy and raw material usage, decrease in pollution and wastes) and indirectly (underlining malfunctions of plant and equipment harming the environment, changing of eco-harmful company practices) (Lülfs & Hahn, 2013).

This research is focused on voluntary⁸² PEB at work, because:

1. The plethora of environmental issues humanity is facing now is so complex that formal systems alone are not able to manage and control it, requiring voluntary engagement of individuals, including employees at work, to contribute to the solution of the environmental problems (Boiral & Paillé, 2012; Boiral, 2009). This point underlines the diversity of the environmental problems and complexity of the process of finding adequate solutions to them. In this case, the solutions should be found with the collaboration of both government and individual, meaning that just legislation is not enough. The role of knowledge about the possible solutions spread in society and civic voluntary ecological initiatives resulting from possessing that knowledge is vital in dealing with environmental problems (Boiral & Paillé, 2012).
2. The obliged behavior on any basis can lead to negative behavioral traits (e.g., negation, unwillingness to perform PEB when not watched and controlled, unwillingness to involve such behavior in self-identity, done only because one has to do them) that are undesirable (Vallerand, 2015). In some cases, forced

⁸² Resuming the arguments of control and voluntarism in PEB, we can say that in the concept of voluntary PEB, 'voluntary' refers to an act or behavior: i). done by a free will (i.e. not bounded by moral or obligational reasons) ii). without any kind of compensation, remuneration or pay iii). for altruistic cause such as charitable or humanitarian reasons iv). for the benefit of someone or something, which is not the actor of voluntary behavior (Cnaan, Handy, & Wadsworth, 1996; Lülfs & Hahn, 2013).

behavior negatively affected the brain resulting in anxiety (Leasure & Jones, 2008) and leading to cognitive dissonance (Ciocirlan, 2017). PEB resulting from rewards (e.g., monetary and/or non-monetary reward system of the organization for performing PEB) are only performed when the reward is present (Lülfes & Hahn, 2013), which is also unwanted.

3. The determinants of voluntary PEB at work are not well-studied (Daily et al., 2009; Zientara & Zamojska, 2018) at both practical and theoretical levels (Temminck, Mearns, & Fruhen, 2015). As a result, the knowledge of motivational factors that promote voluntary PEB in organization is scarce (Tosti-Kharas, Lamm, & Thomas, 2017; Whitmarsh, Haggard, & Thomas, 2018).

One of the difficulties of working with the concept of PEB at work and, particularly, with voluntary PEB at work, is that it is a relatively new term that needs further development in terms of content and operationalization (Francoeur et al., 2019). Many authors provide similar definitions and different types of classifications of pro-environmental behavior calling it differently: voluntary workplace green behavior (Kim, Kim, Han, Jackson, & Ployhart, 2017), workplace environmentally friendly behavior of employees (Saifulina & Carballo-Penela, 2017), OCBE (Paillé et al., 2013), environmental behavioral intentions in a workplace (Greaves, Zibarras, & Stride, 2013), employees environmental behavior (Robertson & Barling, 2013), employee conservation behavior (Carrico & Riemer, 2011), employee green behavior (de Araujo, 2014; Ones & Dilchert, 2012a; Ones et al., 2018), employee sustainable behavior (Pellegrini, et al., 2018). These different conceptualizations result in the development of different measures of voluntary PEB and voluntary PEB at work and the absence of a unique framework and measurement that hinders future research (Robertson & Barling, 2017).

OCB for the environment (OCBE) (Boiral & Paillé, 2012; Boiral, Raineri, & Talbot, 2018; Paillé et al., 2013) and employee green behavior (Ones & Dilchert, 2012a; Ones et al., 2018) are two of the approaches, which have led to a profound discussion of the issues with regard to conceptualization and operationalization of PEB at work.

3.4.2.1. Voluntary pro-environmental behavior at work and organizational citizenship behavior for the environment (OCBE)

The mentioned characteristics of voluntary PEB at work draws a line of similarities with the concept of organizational citizenship behavior for the environment (Boiral, 2009; Boiral, Raineri, & Talbot, 2016; Boiral, Talbot, & Paillé, 2013).

OCBE is developed from the concept of organizational citizenship behavior (OCB) (Organ, 1988, 1997; Organ, Podsakoff, & MacKenzie, 2006). According to Organ et al. (2006, p. 8), OCB involves “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization”, where

discretionary means not included in the formal job description and its omission is not generally understood as punishable (Organ, 1988, 1997).

OCB is described as an extra role behavior driven by affiliation, power or organizational loyalty (Organ et al., 2006). OCB embraces behavior that supports organizational, psychological and social environments, where the working process is performed (Norton et al., 2015).

Prior research has made a great contribution to the studies on OCB, identifying different possible categories of prosocial behavior (see, for example, Organ, 1988; Smith, Organ, & Near, 1983). Some of them are sportsmanship (e.g., the person tries to take the best of the situation facing the problems and does not complain about any work assignments), courtesy (e.g., the person is aware of his/her action on others and measures their impact, he/she avoids creating problems for others), civic virtue (e.g., the person is always updated with the information about the company proposing solutions to the current problems and offering suggestions for the improvement of the present situation, he/she knows what is happening right now because of participation in the meetings regarding the company) (Organ, 1988; Organ et al., 2006).

Later, the categories were classified into helping (workplace altruism), sportsmanship (organizational difficulties tolerance), organizational loyalty (support for objectives of the organization), organizational compliance (respect for the organizational rules), individual initiative (internal organizational involvement), and self-development (voluntary behavioral traits aimed at development of personal knowledge and skills) (Boiral, 2009; Organ et al., 2006).

In addition, some authors distinguish between OCB-I and OCB-O (Organ, 1997; Williams & Anderson, 1991).

The OCB-I is a behavior directed towards the individual, such as helping colleagues when needed (Lamm et al., 2013; Organ, 1997). The OCB-I could be described as a type of altruistic and courtesy behavior of helping or helpfulness “in the interest of preventing problems that would otherwise occur for specifiable individuals” (Organ, 1997, p. 94). OCB-I type of OCB are “behaviors that immediately benefit specific individuals” (Williams & Anderson, 1991, p. 602), which brings benefits to the organization indirectly by positively affecting its workers (Lamm et al., 2013; Williams & Anderson, 1991). OCB-I includes behavior such as helping co-workers, helping and cooperating with others and interpersonal facilitation (Podsakoff, MacKenzie, Paine, & Bachrach, 2000).

OCB-O, in turn, is the OCB where the organization as an entity is the target (Lamm et al., 2013; Organ, 1997) that “demonstrates and sustains high standards for attendance, punctuality, conservation of organizational resources, and use of time while at work” (Organ, 1997, pp. 94–95). OCB-O could be denominated as organizational conscientiousness (Organ, 1997). Some researchers classify OCB-O as organizational compliance, however, in-role behavior and OCB-Os are found to be different types of performance (Williams & Anderson, 1991). OCB-O includes

behavior such as following organizational rules and procedures, job dedication, advance notice when unable to come to work and adherence to informal rules to maintain order (Podsakoff et al., 2000).

Aligned with the definition of OCB, OCBE can be defined as “individual and discretionary social behaviors that are not explicitly recognized by the formal reward system and that contribute to a more effective environmental management by organizations” (Boiral, 2009, p. 223). Hence, OCBE includes the extra-role behavior of the employees towards the environmental improvement in the organizational setting (Boiral, 2009; Daily et al., 2009), including various behaviors such as “sharing knowledge to prevent pollution in the workplace, suggesting solutions aimed at reducing waste, representing the organization at an environmental conference and collaborating with the environmental department to implement green technology” (Boiral & Paillé, 2012, p. 432).

Other examples of OCBE could be “helping to resolve environmental issues, suggesting solutions aimed at preventing pollution, and collaborating with environmental departments to implement green technologies” (Wang et al., 2017, p. 2). For instance, switching off lights, recycling garbage and the use of environmentally friendly sprays are examples of OCBE (Paillé & Boiral, 2013) and also pro-environmental behavior.

The categories where OCBE could be distributed are eco-initiatives, eco-helping and eco-civic engagement (Boiral & Paillé, 2012). Table 3.5 shows main OCB dimensions with their possible OCBE application and categorization. As can be seen, organizational compliance is excluded from the list of OCB and OCBE dimensions. Since OCB is defined as voluntary behavior, it is argued that the compliance is not meeting that requisite, as organizational compliance is based on compliance with organizational standards, policies and procedures (Boiral & Paillé, 2012; Podsakoff & Mackenzie, 1994).

Eco-initiatives are individual employee-driven voluntary initiatives not rewarded by the organization that are aimed at achieving environmental goals including such green initiatives as pollution prevention, waste management, environmental committees. Those are “discretionary behaviors or suggestions that are not recognized by the formal reward system and that cumulatively help to improve the organization’s environmental practices and performance” (Boiral & Paillé, 2012, p. 438). The main focus of eco-initiatives is personal initiatives at the workplace. The results and practices of such eco-initiatives within the framework of OCBE may be i). the “capture” by the organization of those green initiative leaders who affect organizational green performance, ii). the usage of eco-innovations that are, in most cases, the result of employee ideas and suggestions, iii). the involvement of employees in pollution prevention of the production processes iv). successful implementation of an environmental management system in the organization (Boiral & Paillé, 2012).

Eco-helping includes all the behaviors and initiatives with regard to environmental altruism and support behaviors (Boiral, 2009). Eco-helping was defined

as “voluntary and unrewarded behaviours aimed at helping colleagues to better integrate environmental concerns in the workplace” (Boiral & Paillé, 2012, p. 439). Eco-helping mainly focuses on mutual support among employees, resulting in possible empowerment of new employees and promotion of the discussion, cooperation and resolution of complex organizational problems (Boiral & Paillé, 2012).

Table 3.5. Distinctions between OCB and OCBE categories and their possible applications

MAIN OCB CATEGORIES	MAIN CURRENT APPLICATIONS OF OCBS	POSSIBLE ENVIRONMENTAL APPLICATIONS	POSSIBLE OCBE CATEGORIES
Helping	Altruism at the workplace; voluntary actions aimed at helping others employees, supporting or encouraging other persons; efforts to avoid inter-personal conflicts; promotion of cooperation among employees; helping others in case of absence or work overload; technical support to coworkers or clients; etc.	Altruism with regard to the environment and future generations; behavior aimed at encouraging other employees to consider these concerns; efforts to avoid conflicts with stakeholders; collaboration to promote environmental initiatives; aid given to environmental departments to accomplish tasks; etc.	Eco-helping
Sportsmanship	Tolerance of organizational difficulties, inconveniences, and co-worker behaviors; accepting work-related problems without complaining excessively; positive attitude; etc. Support for organizational objectives; defense of the corporate image to stakeholders; positive representation of the company to various communities; efforts to improve corporate reputation.	Acceptance and positive attitude towards the inconveniences and additional work load that can result from environmental practices: waste segregation and recycling, implementation of environmental procedures, etc.	
Organizational loyalty	Respect for explicit and implicit organizational rules; respect for deadlines, punctuality; adherence to the values of the organization; etc.	Adherence to pro-environmental policies and objectives; promotion of the organization's environmental concerns among stakeholders; representation of the company at pro-environmental events (roundtables, debates, public hearings); etc.	Eco-civic engagement
Individual initiative	Internal involvement; sharing ideas and opinions; making constructive suggestions; sharing information and knowledge to improve practices; open questioning of the status quo and inefficient management habits; etc.	Participation in environmental activities; sharing knowledge, information and suggestions on pollution prevention; launching new ecological projects; open questioning of practices likely to harm the environment; etc.	Eco-initiatives
Self-development	Voluntary behaviors to develop personal knowledge, skills, and abilities that could contribute to organizational functioning.	Acquisition of personal knowledge, skills and values aimed at gaining a better understanding and integration of environmental concerns; participation in training programmes for sustainable development; acquisition of environmental information that could be useful to the organization: green technologies, socio-political trends; etc.	Eco-civic engagement

Source: adapted from Boiral & Paillé (2012), Boiral (2009).

Eco-civic engagement includes initiatives related to civic-mindedness with respect to the environmental activities of the organization, including characteristics of OCB dimensions of organizational loyalty and self-development. Eco-civic engagement is basically a volunteer participation in environmental activities and programs of the organization with the main focus on support for organizational commitments (Boiral & Paillé, 2012). Eco-civic engagement could be defined as “defending the general interests of the organization and supporting its environmental commitments” that includes “voluntary and unrewarded participation in environmental activities (events, initiatives or projects) that have been instituted by the organization and that contribute to improving its image or practices” (Boiral & Paillé, 2012, p. 438). It results in improved organizational image and achievement of environmental objectives of the organization (Boiral & Paillé, 2012).

Although voluntary pro-environmental behavior at work and OCBE can be seen as brother concepts, we believe that voluntary pro-environmental behavior at work is an appropriate denomination.

The main concern of OCB and OCBE is the organizational construct (Boiral, 2009; Organ et al., 2006). The behaviors towards the environment that are performed out of the organizational construct are less relevant for OCBE research. However, household private life PEB is closely linked to PEB at work (Tudor et al., 2007). Hence, the concept of voluntary PEB is inserted in a broader framework in comparison with OCBE, which makes the differences between different types of PEB (private life PEB and PEB at work) more visible, giving a bigger picture in the process of the identification of determinants of workplace voluntary PEB.

OCBE research pays more attention to organizational determinants of voluntary PEB at work than individual ones. Nevertheless, individual factors can also influence voluntary PEB of employees. We believe that PEB framework makes more visible the role of individual antecedents of voluntary PEB.

Finally, OCB and OCBE research are focused on contributing to organizational effectiveness (Organ, 1997). From the PEB perspective, voluntary PEB behavior is mostly performed in order to help the environment (Ones & Dilchert, 2012b), which is more in line with the STHRM approach. According to Lamm et al. (2013), even if the employee does not believe in sustainable development, he/she might still be involved in OCBE types of behavior because of the commitment to the organization.

3.4.2.2. Voluntary PEB at work and employees' green behavior

Ones & Dilchert (2012a) and Ones et al. (2018) provide a framework to analyze employee green behavior, including voluntary and prescribed behavior. One of the strengths of this approach is that it provides a complete taxonomy of employee green behavior (Ones & Dilchert, 2012a; Ones et al., 2018).

All green behaviors are classified into five categories⁸³: i). transforming (choosing responsible alternatives, changing how work is done, embracing sustainable innovations, creating sustainable products and processes); ii). conserving (reducing use, reusing, repurposing, recycling and composting); iii). avoiding harm (preventing pollution, strengthening ecosystems, monitoring environmental impact); iv). influencing others (leading, encouraging, and supporting, managing, facilitating and coordinating, educating and training); v). taking initiative (initiating programmes and policies, lobbying and activism, putting environmental interests first) (Ones & Dilchert, 2012a; Ones et al., 2018).

Recently Francoeur et al. (2019) have expanded this framework, proposing to categorize employees' green behaviors at work considering three parameters: i). their type with respect to Ones & Dilchert (2012a) and Ones et al. (2018) work, ii). their level of influence (direct vs indirect), and iii). their degree of inclusion in work tasks (in-role vs extra-role). The proposed categorization is believed to contribute to a better understanding of green behaviors at work and gaining of a detailed view of them (Ciocirlan, 2017; Francoeur et al., 2019; Wiernik, Dilchert, & Ones, 2016).

The level of influence category includes direct and indirect effects of green behaviors at work (Francoeur et al., 2019). According to Homburg & Stolberg (2006), direct influence involves direct engagement for employees in pro-environmental behaviors such as reducing their own resource consumption or energy use, i.e. direct involvement in PEB. In turn, indirect influence includes all behaviors directed towards other individuals such as encouraging others to behave pro-environmentally (Francoeur et al., 2019).

Based on the taxonomy of Ones & Dilchert (2012a) and Ones et al. (2018), conserving, transforming, and avoiding harm were classified as direct influence, since green behaviors are to be found in those categories where employees are directly involved in performing them (e.g., reducing own energy use), while influencing others and taking initiatives were classified as indirect influence (Francoeur et al., 2019; Smith & O'Sullivan, 2012). Influencing others is the behavior where an employee encourages others to perform pro-environmental behavior, therefore, it is considered indirect influence. Taking initiative is a little more complicated. However, since taking initiative includes lobbying and initiating programmes and policies towards the environment, the indirect influence is obvious (Francoeur et al., 2019).

The level of inclusion in work tasks underlines the importance of distinguishing the degree of inclusion of PEB in work tasks in order to better understand how pro-environmental behavior works. Questions such as the type of task and industry can play a key role to determine the level of inclusion of PEB in work tasks (Boiral & Paillé, 2012; Francoeur et al., 2019; Ones & Dilchert, 2012a).

⁸³ Some behaviors belong to various categories at once. For instance, "helping a co-worker plan a public transport commute belongs to both *Leading, encouraging, and supporting* and the *Changing how work is done* subcategories" (Ones et al., 2018, p. 26).

The proposed categorization of employee behaviors can be both applied to voluntary and prescribed pro-environmental behavior at work, helping to classify them and better understand the types of employee green behaviors and later on analyze the antecedents of each behavioral type. Although this research has chosen employees' voluntary pro-environmental behavior at work as a unit of study, we believe that the classification, which includes in-role as well as extra-role behaviors with direct and indirect influence on organizational greening, contributes to better analysis of the determinants of voluntary PEB at work.

3.4.2.3. Measurement of voluntary pro-environmental behavior at work

As Robertson & Barling (2017, p. 58) point out, “measuring workplace proenvironmental behavior is crucial, as the absence of a unifying framework and corresponding measure will likely hinder future research”. However, there is still lack of reliable and correct measurement of green behaviors (Robertson & Barling, 2017).

Research on green behaviors has to focus on the development of unified scales for each green behavior classification, because the motivation of employees to engage in different types and categories of behaviors explained above is different (Francoeur et al., 2019; Steg & Vlek, 2009). As a result, the influencing interventions for the organizations wanting to promote distinctive PEB types at work, differ too (Robertson & Barling, 2017). For instance, avoiding harm and helping others behavioral types may have very distinct motivators to engage in. Using general scales that do not include all PEB types and then claiming that the person is proactive towards the environment, for example, is impossible, since the used scales may include only one type of PEB. As a result, the methodological coherence for the measure of scales is pivotal.

In addition, employees engaging in one PEB category may not participate in the other (Robertson & Barling, 2017). For instance, employees that are willing to be engaged in conservation and transforming behaviors, may not be active initiators and participants of pro-environmental programs, or may not enjoy spending hours speaking with their colleagues to raise their environmental awareness. This may happen due to differences in the personality of the individuals. In this case, we think it may be important to include various items to the scales that measure different types of voluntary pro-environmental behavior to avoid misjudgment.

Moreover, some researchers (Francoeur et al., 2019; Robertson & Barling, 2017) point out the importance of being able to measure the frequency of PEB among employees, which is not observable without a complete measurement system. According to those authors, employees may be engaged in various voluntary PEB types just once and the others may practice, for instance, recycling on a daily basis. The scales that are not developed considering frequency of engagement in green behaviors will not be able to reflect the full picture with regard to voluntary PEB.

Table 3.7 shows the classification of scales to measure pro-environmental behavior at work based on some prior literature. Annex 7.3, Table 7.3 includes more information about every scale.

Table 3.6⁸⁴. Classification of the green behaviors at work

AUTHOR	NUMBER OF ITEMS	PRESCRIBED OR VOLUNTARY BEHAVIORS	CATEGORIES OF OCBE	TYPE OF BEHAVIOR	INFLUENCE	INCLUSION IN WORK TASK
(Fryxell & Lo, 2003)	10	Not explicitly mentioned	Eco-civic engagement, eco-initiatives	Conserving, influencing others, taking initiatives, performing sustainable daily work	Direct and indirect	Not explicitly mentioned
(Boiral & Paillé, 2012)	10	Voluntary	Eco-helping, eco-civic engagement, eco-initiatives	Influencing others, taking initiatives, performing sustainable daily work, environmental civic mindedness	Indirect	Extra-role
(Robertson & Barling, 2013)	7	Not explicitly mentioned	Eco-civic engagement, eco-initiatives	Conserving, avoiding harm, taking initiatives, performing sustainable daily work	Direct and indirect	Not explicitly mentioned
(Lamm et al., 2013)	12	Voluntary	Eco-initiatives	Conserving, avoiding harm, transforming	Direct	Extra-role
(Bissing-Olson et al., 2013)	3	Voluntary and prescribed	Eco-initiatives	Avoiding harm, taking initiatives, performing sustainable daily work	Direct and indirect	In-role and extra-role
(Graves et al., 2013)	13	Not explicitly mentioned	Eco-helping, eco-civic engagement, eco-initiatives	Conserving, avoiding harm, transforming, influencing others, taking initiatives, environmental civic mindedness, environmental voice behavior	Direct and indirect	Not explicitly mentioned
(Robertson & Barling, 2017)	12	Voluntary	Eco-helping, eco-civic engagement, eco-initiatives	Conserving, influencing others, taking initiative	Direct and indirect	Extra-role

Source: author's own elaboration based on Francoeur et al. (2019).

⁸⁴ The detailed classification with the items proposed in prior literature mentioned in the current table in accordance with OCB and OCBE dimensions can be seen in Annex 7.3.

This table clearly shows that prior literature has measured green behaviors at work differently in terms of the number of items considered in every scale⁸⁵ and variety of typology of considered behaviors, supporting previous ideas described above.

In various works the behavior under study is denominated differently: workplace pro-environmental behavior (Robertson & Barling, 2013), OCBE (Boiral & Paillé, 2012), pro-environmental behavior (Graves et al., 2013), including different items to measure mentioned behavioral types⁸⁶. For instance, PEB related to influencing others (Graves et al., 2013) is measured with different items with respect to OCBE related to influencing others (Boiral & Paillé, 2012). Another example could be the works by Boiral & Paillé (2012) and Robertson & Barling (2017). According to the taxonomy of Ones & Dilchert (2012a) and Ones et al. (2018), those two works do not include the same items either. However, when it comes to the explanation of selected dependent variable, the description is almost the same.

Some studies where the dependent variable is named similarly (such as Graves et al., 2013 and Robertson & Barling, 2013), also use different scales when measuring behaviors included in the same typology. For instance, Graves et al. (2013) and Robertson & Barling (2013) both study pro-environmental behavior that could be classified as eco-civic engagement, eco-initiatives, conserving and avoiding harm and taking initiatives. However, the scales they use are different.

With respect to the items included in the research, the numbers differ too. There are studies that include 3 items (Bissing-Olson et al., 2013), 7 items (Robertson & Barling, 2013), 10 items (Boiral & Paillé, 2012; Fryxell & Lo, 2003), 12 items (Lamm et al., 2013; Robertson & Barling, 2017) and 13 items (Graves et al., 2013). Considering previous arguments stating that employees engaging in one PEB category may not participate in the other (Robertson & Barling, 2017), the importance of inclusion of the items measuring different PEB categories is crucial. We believe that very small number of items may not lead to very accurate results when measuring PEB, since the concept is not so well-developed and defined. For example, some studies (Graves et al., 2013) focused on a wide variety of PEB, including all types of behavior proposed by Ones & Dilchert (2012a), Ones et al. (2018) and Boiral & Paillé (2012), including 13 items to measure them.

As we can see, prior literature examining green behaviors at work do not explicitly mention if the variable under study is voluntary or prescribed (Fryxell & Lo, 2003; Graves et al., 2013; Robertson & Barling, 2013). However, other works focus on either voluntary behavior (Boiral & Paillé, 2012; Lamm et al., 2013; Robertson & Barling, 2017) or both voluntary and prescribed behavior (Bissing-Olson et al., 2013).

Also, prior research has focused on both direct and indirect behavior studying them separately (Boiral & Paillé, 2012; Lamm et al., 2013) and together (Bissing-Olson et al., 2013; Fryxell & Lo, 2003; Graves et al., 2013; Robertson & Barling,

⁸⁵ There was also posterior research made on the basis of the scales mentioned in the table.

⁸⁶ Table 7.3 (Annex 7.3) shows the questionnaire items of the studies included in the Table 3.7.

2013, 2017). Other study (Bissing-Olson et al., 2013) focuses on both in-role and extra-role behavior studying task-related green behaviors (i.e. to what extent work tasks are performed in a pro-environmental way) and daily proactive pro-environmental behavior. In turn, some research do not mention this classification in the study (Fryxell & Lo, 2003; Graves et al., 2013; Robertson & Barling, 2013), while other works focus on extra-role behaviors (Boiral & Paillé, 2012; Lamm et al., 2013; Robertson & Barling, 2017).





4. RESEARCH FRAMEWORK AND HYPOTHESES DEVELOPMENT

4.1. Determinants of voluntary pro-environmental behavior at work

Antecedents of voluntary pro-environmental behavior at work have been studied from different perspectives, along with psychological research, general organizational research, OCB research, proactivity research and GHRM research.

Green HRM literature is still in its infancy and very few studies have examined how organizational GHRM policies and practices affect the employee engagement in voluntary PEB at work (Alnajdawi, Emeagwali, & Elrehail, 2017). On the contrary, contributions from psychological research, OCB and OCBE literature are very interesting for current research.

In addition, as voluntary PEB can be seen as a type of proactive behavior, the literature on proactive behaviors can also provide useful antecedents of voluntary PEB at work, underlining the importance of employee initiative to solve the organizational problems and contribute to organizational goals (Crant, 2000).

Table 4.1 shows examples of antecedents of pro-environmental behavior at work (both voluntary and prescribed since some studies do not explicitly mention these characteristics of the studied behavior). This table was elaborated considering contributions from general organizational research, psychological research, OCBE research and GHRM research⁸⁷.

There is no an accepted classification of antecedents of voluntary PEB at work. Lülfs & Hahn (2013) provide a complete theoretical framework that consider antecedents such as the existence of environmental management system, presence of code of conduct or guidelines or realization of environmental training, perceived corporate environmental performance, perceived supervisory support, including awareness of need, awareness of consequences, social norm, personal moral norm or attitude towards voluntary pro-environmental behavior of employees.

They can be easily categorized as factors from the organizational context (e.g., existence of environmental management system) and factors from the individual domain (e.g., personal moral norm or attitude towards voluntary pro-environmental behavior).

⁸⁷ More extended version of the table that considers contributions from mentioned fields is included in the Annex 7.4.

Table 4.1. Classification of the studied determinants of PEB at work

	AUTHOR, NAME OF THE CONSTRUCT AND JOURNAL	ORGANIZATIONAL CONTEXT-INDUCED FACTORS	INDIVIDUAL FACTORS
General Organizational Research	(Graves & Sarkis, 2018) pro-environmental behaviors (basic and advanced) Journal of Cleaner Production	environmental transformational leadership	environmental values, internal motivation, external motivation
	(Melo et al., 2018) PEB Ecological Economics	work-life balance	environmental self-perception (environmental values and attitudes)
	(Robertson & Barling, 2013) employees' environmental behaviors Journal of Organizational Behavior	environmentally-specific transformational leadership, leaders' environmental behaviors, leaders' environmental descriptive norms	employees' harmonious environmental passion
	(Robertson & Carleton, 2018) voluntary pro-environmental behavior Journal of Leadership and Organizational Studies	environmentally specific transformational leadership, perceived pro-environmental climate of coworkers	internal environmental locus of control
	(Gifford & Nilsson, 2014) pro-environmental behavior International Journal of Psychology		personal factors (childhood experience, knowledge and education, personality and self-construal, sense of control, values, political and world views, goals, felt responsibility, cognitive biases, place attachment, age, gender, chosen activities), social factors (religion, urban-rural differences, norms, social class, proximity to problematic environmental sites, cultural and ethnic variations)
Psychological Research	(Lülfes & Hahn, 2013) voluntary pro-environmental behavior of employees (theoretical model only) European Management Review	organizational context (existence of environmental management system, presence of code of conduct or guidelines, realization of environmental training), perceived behavioral control (perceived corporate environmental performance, perceived supervisory support)	awareness of need, awareness of consequences, social norm, personal moral norm, attitude towards voluntary pro-environmental behavior of employees, intention to perform voluntary pro-environmental behavior of employees, habit
	(Paillé & Mejía-Morelos, 2014) PEB at work Journal of Environmental Psychology	perceived organizational support, job attitudes (employee commitment to organization and job satisfaction)	perceived psychological contract breach
	(Whitmarsh et al., 2018) recycling behaviors Frontiers in Psychology	context (work, home, holiday)	attitudes, social norms, perceived behavioral control, identity, habits, personal norms, and contextual variables (recycling information, location of bins)

4. RESEARCH FRAMEWORK AND HYPOTHESES DEVELOPMENT

OCBE Research	(Boiral, Raineri, & Talbot, 2018) OCBE Journal of Business Ethics		personal environmental beliefs, stages of consciousness
	(Boiral et al., 2015) OCBE Business Strategy and the Environment	managers' OCBEs, environmental management practices	environmental values, perceived behavioral control
	(Paillé et al., 2017) OCBE and private green behavior Journal of Business Ethics	job efficacy, supervisory support for the environment, environmental management practices, affective commitment	archetypes (citizen, enthusiast, apathetic, conformist), personal environmental beliefs
	(Tosti-Kharas et al., 2017) OCBE Organization & Environment	perceived organizational rationale for sustainability (eco-centric, organization-centric), organizational identification	personal rationale for organizational sustainability (eco-centric, organization-centric)
Green HRM Research	(Dumont, Shen, & Deng, 2017) employee work green behavior (in-role and extra-role) Human Resource Management	psychological green climate, green HRM	individual green values
	(Haddock-Millar et al., 2016) green behaviors The International Journal of Human Resource Management	green HRM approaches (organization strategic priorities and context, organization structure in relation to the environment and human resource management/development function, environmental and human resource management and/or development initiatives)	
	(Pellegrini, Rizzi, & Frey, 2018) employee sustainable behavior (in-role and extra-role) Business Strategy and the Environment	sustainable HR (employee perception of internal sustainability orientation, supervisory support behavior, training, rewards), affective commitment	
	(Pinzone et al., 2016) collective OCBE Journal of Cleaner Production	collective affective commitment to environmental management change, green competence building practices, green performance management practices, green employee involvement practices	
	(Saeed et al., 2019) employees' pro-environmental behaviors Corporate Social Responsibility and Environmental Management	green HRM practices (green recruitment and selection, green training and development, green performance management and appraisal, green reward and compensation, green empowerment)	pro-environmental psychological climate (capital), environmental knowledge

Source: author's own elaboration.

The proactivity literature usually follows a similar classification for examining antecedents of employee's proactivity. For instance, the model of Crant (2000), studying factors that influence pro-active behaviors, divided them into two groups: individual differences (job involvement, proactive personality, taking charge, etc.) and contextual factors (organizational culture, organizational norms, management support, public or private setting, etc.)⁸⁸. We consider that distinguishing between antecedents of voluntary pro-environmental behavior at work derived from the organizational context and individual antecedents can be useful to achieve a better organization of them. Hence, antecedents included in Table 4.1 follow this classification.

Although in the last two years there has been a growing interest in this topic, prior research in the area of pro-environmental behavior at work and particularly for voluntary PEB is still scarce (Ones & Dilchert, 2012; Paillé & Boiral, 2013), because of the originality of this new field of study (Boiral et al., 2015). Underlining that human behavior is a principal determinant and motive of all the environmental issues humanity is facing now (Carter, 2009), the topic of voluntary PEB has attracted the attention of researchers in both private (Kim, Kim, Han, & Holland, 2016) and public spheres (Saifulina & Carballo-Penela, 2017).

Table 4.2 shows some gaps found in prior literature with regard to the studies on pro-environmental behavior⁸⁹.

Table 4.2. Some research gaps in prior literature

AUTHOR	JOURNAL	GAP
(Alnajdawi et al., 2017)	Journal of Environmental Accounting and Management	Lack of prior research on workplace climate, organizational culture, organizational support, entrepreneurial orientation, organizational learning, knowledge management, and organizational commitment as influencers on organizational performance
(Bamberg & Möser, 2007)	Journal of Environmental Psychology	Lack of research in the field of psycho-social determinants of PEB, lack of meta-analyses of research on PEB
(Bissing-Olson et al., 2013)	Journal of Organizational Behavior	Lack of research on the importance of time and circumstances (daily affect) that may influence the employees' pro-environmental behavior
(Boiral & Paillé, 2012)	Journal of Business Ethics	The role of OCBE in environmental management needs to be explored
(Daily et al., 2009)	Business and Society	Empirical test on identified OCBE determinants is needed
(Dumont et al., 2017)	Human Resource Management	The degree and circumstances of influence of green HRM on employees' workplace green behavior is unknown

⁸⁸ Proactivity literature claims that proactive behavior leads to organizational and performance outcomes such as job performance, job attitudes, and career success (Crant, 2000). Other studies on determinants of proactive behavior also divide the possible influence factors into perceived work environment (organizational factors) and individual differences (Parker et al., 2006).

⁸⁹ The selected articles were considered regardless if their unit of study was voluntary or prescribed PEB. First, many authors do not explicitly specify whether their unit of study is voluntary behavior or prescribed one. Second, since prescribed and voluntary behavior can share a similar nature, some of the gaps for prescribed pro-environmental behavior at work may be useful for the identification of the gaps for the current research.

4. RESEARCH FRAMEWORK AND HYPOTHESES DEVELOPMENT

AUTHOR	JOURNAL	GAP
(Lu et al., 2017)	Resources, Conservation and Recycling	To explore the connotation, structure, status quo, and impact factors of employee PEB in workplaces in China
(Luu, 2019a)	International Journal of Contemporary Hospitality Management	Instead of looking at a single individual-level mediator, future research can investigate multiple mediation mechanisms at both individual level and team or organizational level
(Luu, 2019b)	Journal of Hospitality and Tourism Research	Lack of research on the effect of environmentally specific transformational leadership on OCBE
(Melo et al., 2018)	Ecological Economics	There is a gap between pro-environmental values and engagement in PEB should be studies (i.e. having environmental values not always lead to the engagement in PEB, what else is missing in the equation should be studied, current study focuses on work-life balance as a possible missing variable)
(Norton et al., 2014)	Journal of Environmental Psychology	Scarce studies on psychological mechanisms that link sustainability policies with pro-environmental behaviors
(Paillé & Boiral, 2013)	Journal of Environmental Psychology	Lack of prior literature on pro-environmental behaviors in the workplace in comparison with pro-environmental behaviors outside the work setting
(Paillé et al., 2016)	Journal of Business Ethics	Very little prior research on how relationships between co-workers affect the willingness to promote PEB at work within the framework of ethical case and SET
(Paillé, Raineri, & Boiral, 2017)	Journal of Business Ethics	Lack of knowledge about conditions that influence individuals' responsible behavior at work based on their environmental commitment outside work
(Pavalache-Ilie & Cazan, 2018)	International Journal of Environmental Health Research	Personality factors (psychological correlates) regarding pro-environmental behaviors are not studied a lot
(Pellegrini et al., 2018)	Business Strategy and the Environment	Limited empirical research on how HR practices affect employee sustainable behavior
(Pinzone et al., 2016)	Journal of Cleaner Production	Lack of research: i). OCBEs at the collective level; ii). effect of GHRM practices on OCBE; iii). the psychological factors that affect the link of GHRM practices and collective OCBEs.
(Rezapouraghdam et al., 2018)	Journal of Sustainable Tourism	Lack of research about motivational factors (such as contextual effects and cultural differences) influencing employees' PEB at work, lack of research about pro-environmental behaviors at work in general
(Robertson & Barling, 2013)	Journal of Organizational Behavior	Research that investigates PEB at work is scarce
(Robertson & Carleton, 2018)	Journal of Leadership and Organizational Studies	Not enough studies that focus on how environmental leadership affects employees' voluntary PEB, and the conditions that influence or reduce such effects
(Ruepert, Keizer, & Steg, 2017)	Journal of Environmental Psychology	Future research needed in the area of link where corporate environmental responsibility can promote pro-environmental behavior of employees
(Ruepert et al., 2016)	Energy Research and Social Science	Factors that affect PEB at work not well-studied, lack of knowledge if factors that have an impact on PEB at work are the same as those influencing PEB at home (individual factors)
(Saeed et al., 2019)	Corporate Social Responsibility and Environmental Management	Lack of prior literature on i). antecedents of employees' PEB, ii). effect of GHRM practices on employees' PEB, iii). conditions that bound the link of GHRM practices on employee's PEB

AUTHOR	JOURNAL	GAP
(Temminck et al., 2015)	Business Strategy and the Environment	Lack of research (theoretical and practical) of employees' PEB at work and its determinants, all commitment types not included in the research on employees' PEB at work (affective, continuance and normative commitment)
(Tosti-Kharas et al., 2017)	Organization and Environment	Lack of research on individual PEB at work and complex and interrelated factors that motivate employees to engage in PEB at work (organizational vs individual factors)
(Whitmarsh, Haggard, & Thomas, 2018)	Frontiers in Psychology	Lack of i). understanding of how to promote more sustainable behaviors (beyond recycling) across a range of contexts (home, holiday, work), ii). research on contextual (e.g., organizational) factors that influence sustainable behaviors at a range of contexts (home, holiday, work)
(Wiernik et al., 2016)	Frontiers in Psychology	Lack of knowledge about aging effects on green performance and PEB at work
(Zientara & Zamojska, 2018)	Journal of Sustainable Tourism	Lack of research i). on motivational factors such as green organizational climate that influence OCBE, ii). OCBE in tourism sector

Source: author's own elaboration.

As can be seen, the suggested gaps taken from prior literature address many important topics that are lacking knowledge about different aspects of PEB at work. The majority of the researchers agree that the studies on voluntary PEB at work are still scarce (Paillé & Boiral, 2013; Robertson & Barling, 2013). In particular, the evaluation of the gaps related to the analysis of determinants that influence PEB at work underlines lack of knowledge about the following antecedents:

- workplace climate, organizational culture, organizational support, entrepreneurial orientation, organizational learning, knowledge management, and organizational commitment (Alnajdawi et al., 2017),
- green organizational climate (Zientara & Zamojska, 2018),
- time and circumstances at work (Bissing-Olson et al., 2013),
- relationships between co-workers (Paillé et al., 2016),
- environmentally specific transformational leadership (Luu, 2019b; Norton et al., 2014),
- affective, continuance and normative commitment (Temminck et al., 2015),
- environmental values (Melo et al., 2018),
- contextual effects and cultural differences (Rezapouraghdam et al., 2018),
- psycho-social factors (Bamberg & Möser, 2007),
- personality factors (Pavalache-Ilie & Cazan, 2018)
- and outside work pro-environmental behavior.

The role of outside work pro-environmental behaviors (Paillé et al., 2017) such as private life voluntary pro-environmental behavior is poorly understood in a composite picture of different factors originating from various domains. Especially, when it comes to the prediction of voluntary pro-environmental behaviors practiced at work. There is a lack of knowledge about possible conditions that have an impact on voluntary pro-environmental behavior at work based on the environmental behavioral

patterns outside work, despite the claim of various prior studies stating that it might be true (Ruepert et al., 2016).

Prior literature also underlines the lack of complexity of the analyzed models (Tosti-Kharas et al., 2017) in terms of inclusion of determinants from various pools of factors such as those originating from organizational context and individuality together. Many studies on voluntary PEB at work focus on organizational pool of factors or formal green policies and practices. However, individual factors and personality are important contributors into complicated psychological systems of human beings, completing the complex mechanisms of employee engagement in voluntary PEB and researchers have paid less attention to them.

The inclusion of multiple mediation mechanisms (Luu, 2019a) for better prediction of antecedents of voluntary pro-environmental behavior at work can be also considered to elaborate more complex research models. There are diverse possibilities in this area that could shed light onto research on PEB and its determinants. Some indirect effect variables may be related to the working environment such as green organizational culture or perceived organizational environmental support, for instance.

Another gap to fill deals with the context of the existing studies. Prior research on voluntary PEB at work has paid attention to examine its antecedents on manufacturing sectors. However, the service sector companies also impact the environment, and green behaviors of their employees is an important component for the achievement of global sustainable development.

Additionally, the role of formal green human resource management in promoting employees PEB is also not clear enough (Pellegrini et al., 2018; Pinzone et al., 2016; Saeed et al., 2019). As many companies have not implemented yet green human resource management policies and practices, research on this field is still on its initial stage.

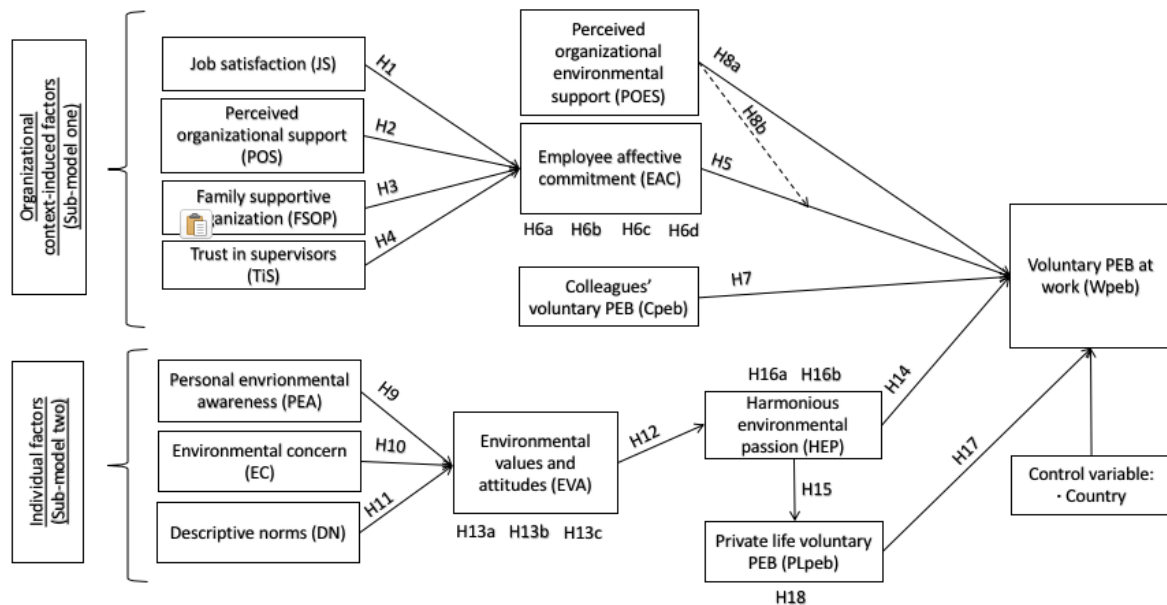
Finally, although some studies propose very theoretical research models (Daily et al., 2009; Lülfs & Hahn, 2013) including different types of antecedents, those models are not tested empirically.

After revising the literature on antecedents of pro-environmental behaviors and the literature gaps we have elaborated a research model including 13 antecedents of voluntary pro-environmental behaviors at work. They were classified in two groups: organizational context-induced antecedents and individual antecedents.

The following determinants have been selected for organizational context-induced group (sub-model one): job satisfaction, employee affective commitment, perceived organizational support, family supportive organizational perceptions, trust in supervisors, colleagues' voluntary pro-environmental behavior, perceived organizational environmental support.

Figure 4.1 shows our research model.

Figure 4.1. Research model



Source: author's own elaboration.

In sub-model one, we state that employee affective commitment, perceived organizational environmental support and colleagues' pro-environmental behavior directly affect voluntary pro-environmental behavior at work. In the case of employee affective commitment, the relation is strengthened with the perceived environmental organizational support. Moreover, job satisfaction, perceived organizational support, family supportive organizational perceptions and trust in supervisors affect voluntary pro-environmental behavior at work through employee affective commitment, which acts as a mediating variable.

The individual antecedents (sub-model two) include personal environmental awareness, environmental concern, descriptive norms, environmental values and attitudes, harmonious environmental passion, private life pro-environmental behavior.

In sub-model two, personal environmental awareness, environmental concern and descriptive norms are direct antecedents of environmental values and attitudes, affecting them positively. Environmental values and attitudes positively influence harmonious environmental passion. Environmental values and attitudes also positively mediate the relationship between personal environmental awareness, environmental concern and descriptive norms and harmonious environmental passion. Harmonious environmental passion positively influences private life voluntary pro-environmental behavior and employees' voluntary pro-environmental behavior at work.

Harmonious environmental passion also positively mediates the relationship between environmental values and attitudes and private life voluntary pro-environmental behavior, and environmental values and attitudes and employees' voluntary pro-environmental behavior at work. Private life voluntary pro-environmental behavior is

expected to have a positive impact on employees' voluntary pro-environmental behavior at work. Private life voluntary pro-environmental behavior also positively mediates the relationship between harmonious environmental passion and employees' voluntary pro-environmental behavior at work.

4.2. Theories to understand the relationships between the determinants of employees' voluntary pro-environmental behavior at work

In order to understand the relationship between the determinants named above and the dependent variable, different theories have been used. With regard to the first sub-model, the main theories are Social Exchange Theory and Organizational Support Theory. Other secondary theories for this research are Social Identity Theory and Social Cognitive Theory.

With respect to the second sub-model, the most important theories used to explain studied relationships are the Theory of Planned Behavior, Norms Activation Model and Broaden-and-Build Theory.

4.2.1. Theories for understanding relationships among organizational context-induced antecedents of employees' voluntary pro-environmental behavior at work

Social Exchange Theory

Being one of the most important theories in explaining behavior at work, social exchange theory (SET) (Blau, 1964; Thibaut & Kelley, 1959) states that interdependent exchange happening between two parties (in our case, organization vs employee) has the ability to generate high-quality relationships between those parties based on reliable, devoted and bilateral commitment and trust (Blau, 1964; Cropanzano & Mitchell, 2005). SET states that "social exchange comprises actions contingent on the rewarding reactions of others, which over time provide for mutually and rewarding transactions and relationships" (Cropanzano & Mitchell, 2005, p. 890).

The theory is believed to have its first roots established around 1920s (Cropanzano & Mitchell, 2005) and applied in various disciplines such as social psychology (Gouldner, 1960) and sociology (Blau, 1964), which is no surprise, since social exchange can be found everywhere including market relations, love or friendship relationships, social relationships in the community (Blau, 1964, p. 88): "neighbors exchange favors; children, toys; colleagues, assistance; acquaintances, courtesies; politicians, concessions; discussants, ideas; housewives, recipes". The main principle of this theory lies within the obligation that one party puts over the another by supplying rewarding services. In order to free him-/herself from this obligation, the other party gives the benefits to the first one (Blau, 1964).

The theory states that the term social exchange is referred to voluntary actions performed by both parties. The motivation to be engaged in those voluntary actions

must not come from a sense of fear, but from the expectation of returns from others involved in social exchange⁹⁰ (Blau, 1964).

Social exchange could be seen as a type of social contract. In this case, contracts create obligations and requirements to the involved parties to do or not to do something (Rousseau & Parks, 1993). As a result, those social contracts are interdependent and contingent on the actions of another party involved in such contract (Blau, 1964). Economic exchange is the short-term contract and social exchange is a long-term contract (Konovsky & Pugh, 1994). Though, unlike in the economic exchange, the contribution to the organization may be postponed to the long-term future, because of which trust is a key component for social exchange. Since there is no way to ensure the return of the favor, the party that performed it first has to trust in another party that the favor will be returned in the future (Blau, 1964).

Because trust plays a key role in social exchange, usually the favors given for the first time tend to be small since little risk of receiving nothing in exchange exists in this case (Blau, 1964). For example, an employee may give small favors to his/her colleague or manager in solving work-related issues. If there is no payback, the favors stop. If there is a constant payback, the second party demonstrates its trustworthiness, trust is developed and favors continue maintaining the social exchange relationship.

In the relationship employee-organization, the social exchange generates the expectation that the employee would contribute to the organization because of the benefits given (Blau, 1964). In this case too, the trust of the procedural fairness of the exchange plays a key role: “trust is necessary for maintaining social exchange, especially in the short run, where some temporary or perceived asymmetries may exist between an individual's inducements—that is, the benefits received from participation in the social exchange relationship—and contributions, the individual's inputs into the relationship” (Konovsky & Pugh, 1994, pp. 657–658).

Engaging in an exchange relationship also involves a certain degree of commitment from party Y because of the investments party X contributed to develop a friendly relationship with party Y. As a result, party Y feels committed to the relationship established and develops more trust felt by party X for party Y (Blau, 1964). The degree of commitment to sustain the relationship finally comes from both parties. Sometimes conflicting interests may be involved in social exchange relationships deciding, which party should show more commitment. As in a love relationship, for instance, one partner is more committed than the other. In the employee-employer relationship the employee may pay some respect for being involved in continuous social exchange and be more committed to secure the relationship (Blau, 1964).

As we understand from the previous arguments, in order to be successful, the interdependent exchange happening between two parties has to follow some rules. There are also some conditions that affect the process of social exchange. Those may

⁹⁰ In this case, the situation where a burglar who forcefully takes someone's money is not considered social exchange even if a person gives his/her money to the burglar in exchange for his/her life (Blau, 1964).

be “the stage in the development and the character of the relationship between exchange partners, the nature of the benefits that enter into the transactions and the costs incurred in providing them, and the social context in which the exchanges take place” (Blau, 1964, pp. 97–98). The rules under which social exchange takes place may be reciprocity rules and negotiated rules to reach some beneficial results (Cropanzano & Mitchell, 2005).

The norm of reciprocity is based on a notion that any act of kindness should be returned, being a significant principle of any community or society (Gouldner, 1960). The concept could be defined as “a behavioral response to perceived kindness and unkindness, where kindness comprises both distributional fairness as well as fairness intentions” (Falk & Fischbacher, 2006, p. 294).

The rule of reciprocity is one of the best rules known for the repayment and exchange including reciprocity as interdependent exchange, reciprocity as a folk belief and reciprocity as a norm and individual orientation (Cropanzano & Mitchell, 2005).

Reciprocity as an interdependent exchange could be described as follows. “The process begins when at least one participant makes a “move,” and if the other reciprocates, new rounds of exchange initiate. Once the process is in motion, each consequence can create a self-reinforcing cycle. The sequence is likely to be continuous, making it difficult to organize into discrete steps” (Cropanzano & Mitchell, 2005, p. 876)

Reciprocity as a folk belief principle could be understood from its name – it is a belief that people hold about what they deserve to receive that is based on their cultural background (Cropanzano & Mitchell, 2005; Gouldner, 1960). The notions within reciprocity as a folk belief include the sense that over time all reciprocal exchanges will be fairly equilibrated, unhelpful members will receive punishment and functional members in terms of help will receive what they deserve (i.e. will receive help when needed) (Cropanzano & Mitchell, 2005; Malinowski, 1932).

Reciprocity as a norm and individual orientation uphold the idea that reciprocity is a cultural mandate where all members should obey the reciprocity rules, and those, who do not obey, will be finally punished (Cropanzano & Mitchell, 2005; Malinowski, 1932). In this case, reciprocity rules are obeyed because they should be obeyed as an obligation by all members of the society (Cropanzano & Mitchell, 2005).

The negotiated rules, in turn, tell us that the parties involved in social exchange may negotiate the rules of the exchange hoping to achieve an agreement that satisfies both parties (Emerson, 1976).

However, there might be other rules that influence social exchange. One of those was proposed by Meeker (1971) who said that the rules of social exchange may be treated as individual decisions depending on rationality, altruism, group gain, status consistency and competition. In this case, the behavior is predicted by individual premises such as values, perception of alternative behaviors, expectation of consequences of each available behavior to oneself and social norms that prescribe the perfect combination of previous three elements. Rationality is considered as a principle

of social exchange (Meeker, 1971). If social exchange is considered following those rules, SET is not only helpful in identifying organizational context induced factors, but also individual factors affecting pro-environmental behavior at work.

SET is useful to explain extra-role behaviors such as OCB. If the employee feels that the organization is taking care of its workers, he/she will most probably be involved in effective work behaviors and positive attitudes towards work and the organization (Cropanzano & Mitchell, 2005). This idea was proposed by Organ (1988) who stated that if the supervisor is fair to his/her employees, most probably employees will engage into citizenship behaviors beneficial to the organization in exchange to the fairness.

In some cases, social exchange started in the employee-organization relationship may be in form of pay or other benefits such as fair treatment that employee receives. If the payback cannot be performed by in-role behaviors, i.e. improvement of in-role behaviors is impossible, employees will experience the need to return the favor, and it will be done by engagement in extra-role behaviors that benefit the organization (Kabasakal, Dastmalchian, & Imer, 2011).

According to prior literature, the social exchange theory was used to identify various determinants of environmental behavior such supervisory support for environmental efforts, perceived corporate social performance, organizational commitment, environmental performance (Daily et al., 2009), perceived colleague support, commitment to colleague, job satisfaction (Paillé et al., 2016), perceived organizational support, job attitudes (employee commitment to organization and job satisfaction) (Paillé & Mejía-Morelos, 2014), perceived organizational support, commitment to the organization, job satisfaction (Paillé & Boiral, 2013).

The theory makes a very important contribution to the current research, since there are many social exchanges studied, which allows SET to be applied.

Organizational Support Theory

The theory of organizational support (OST) (Eisenberger, Cummings, Aemeli, & Lynch, 1997; Eisenberger, Huntington, Hutchinson, & Sowa, 1986) states that perceived organizational support (POS) is formed by employees to meet their socio-emotional needs and evaluate the advantages of elevated efforts at work. As a result of perceived organizational support, employees feel the obligation to contribute to reaching organizational objectives, as well as showing affective commitment.

The theory is based on the employee beliefs about the degree to which organization values their time and efforts contributed to the organization they work for and the degree to which organization cares about their well-being (Eisenberger et al., 1986).

In other words, OST underlines that the extent the organization is supporting its employees is important, noting that not only actual support matters, but also the employee's beliefs about that support, their perceptions: "to determine the

organization's readiness to reward increased work effort and to meet socioemotional needs, employees develop global beliefs concerning the extent to which the organization values their contributions and cares about their well-being" (Rhoades & Eisenberger, 2002, p. 698).

Hence, the central construct of organizational support theory is perceived (by employees) organizational support (Eisenberger et al., 1997; Eisenberger et al., 1986). POS could be defined as "assurance that aid will be available from the organization when it is needed to carry out one's job effectively and to deal with stressful situations" (Rhoades & Eisenberger, 2002, p. 698). If the employee beliefs about POS are high, the workers are willing to contribute their time and effort to the organization.

OST refers to SET, if the employment is considered as an issue for trade in exchange for loyalty and hard work (Cropanzano & Mitchell, 2005), because the social exchange activated by POS leads to the employee desire to "pay back" the organization that treats him/her well: "employees feel obligated to help the organization achieve its goals and objectives and expect that increased efforts on the organization's behalf will lead to greater rewards" (Kurtessis et al., 2017, p. 1855).

The described behavior could be taken as a positive norm of reciprocity (i.e. the return or repayment of some previous favorable treatment) (Eisenberger & Stinglhamber, 2011). The positive norm of reciprocity is considered to be universal regardless of the cultural background of the studied society, its modernity or development stage. In this case, the higher the POS experienced by the employee, the greater is the willingness to engage in job-related efforts, in-role and extra-role behaviors that benefit the organization, among others (Kurtessis et al., 2017).

Some studies (e.g., Kurtessis et al., 2017; Rhoades & Eisenberger, 2002) have underlined that the organizational support theory helps to successfully and clearly identify the determinants of POS such as leadership, employee–organization context, human resource practices, and working conditions.

To develop positive evaluations towards POS, employee contributions should receive some rewards in form of monetary (pay) and non-monetary benefits such as fringe benefits (company car, paid public transport, paid expenses on vacation) and socio-emotional benefits (self-esteem, value of their work, approval of the colleagues), which would increase the positive evaluations of the organization by the employees even more (Eisenberger et al., 1986).

According to prior research, three main categories of perceived favorable organizational actions towards the employee were identified. They are fairness, favorableness of organizational rewards and job conditions, supervisor support. Demographics and personal characteristics were not significantly related to development of POS (Baran, Shanock, & Miller, 2012; Muneer, Iqbal, Saif-Ur-Rehman, & Long, 2014; Rhoades & Eisenberger, 2002).

Fairness mainly consists of procedural and informational justice in the workplace. Procedural justice is the fair distribution of resources among employees that are

needed to perform the job. Informational justice means the availability of necessary information to all members of the organization who are assigned to the certain work task where that information is vital to perform the job correctly (Rhoades & Eisenberger, 2002).

Organizational rewards and job conditions also form an essential part in the development of POS (Rhoades & Eisenberger, 2002; Shore & Shore, 1995). Job conditions that affect the development of POS are (Rhoades & Eisenberger, 2002; Shore & Shore, 1995): i). recognition, pay and promotions; ii). job security; iii). autonomy (employee perceived control over job tasks); iv). role stressors such as work overload, role ambiguity and role conflict (the more working environmental demands that are not easy to cope for employee are controlled by the organization, the more POS is developed); v). training, which is considered organizational investment in employee (increases POS); and vi). organizational size (employees feel less valued in large organizations, which decreases POS).

Supervisory support, as a determinant of POS, functions in the following way. The supervisor in the eyes of the employees is a representative agent of the organization, embodying in him-/herself the decisions and thoughts of the organization (Levinson, 1965; Rhoades & Eisenberger, 2002). In other words, if the perceived supervisory support is not highly valued by the employee, employee opinion of POS most probably will not be high either.

When mentioned antecedents are present, POS may result in commitment, better performance, citizenship behavior, less probable withdrawal behaviors, job-related affect, and diminished strain (Baran et al., 2012; Muneer et al., 2014; Rhoades & Eisenberger, 2002).

If with fringe benefits and monetary remuneration effects on POS can be understood relatively easy, the socio-emotional needs satisfaction mechanism is more complex.

As we can see from the above described arguments, the positive organizational evaluation of the employee contributions and work promotes positive employee reactions (Eisenberger & Stinglhamber, 2011) that might increase the sense of belonging to the organization, better performance of the job and willingness to do good for experienced good.

When socioemotional needs are met, employees also develop POS (Baran et al., 2012). However, socio-emotional needs fulfillment through POS happens because human beings tend to ascribe human like characteristics to the organization, humanizing it. As a result, the perceived behavior from the organization is formed according to the behavior given to the organization (Eisenberger & Stinglhamber, 2011).

Humanizing the organization, employees can understand if the organization favors or disfavors them through POS (Rhoades & Eisenberger, 2002), because of the fact that the organization has legal, moral and financial responsibility for its employees, policies, norms and culture of the organization form employee in-role behaviors and

because organization has certain power over its employees (Levinson, 1965; Rhoades & Eisenberger, 2002). However, the rewards provided by the organization that represent positive evaluation of the efforts by the employees should be perceived as voluntary in order to develop POS, rather than being a result of trade union negotiations, for instance (Eisenberger et al., 1997; Rhoades & Eisenberger, 2002).

The socio-emotional needs fulfillment differentiates the organizational support theory from social exchange theory. In this case, the behaviors beneficial to the organization are not only performed in exchange for employment and good treatment, but also because the organization emphasized self-enhancement (such as approval, self-esteem, affiliation, emotional support) that helps the employee to identify him-/herself with the organization⁹¹ (Kurtessis et al., 2017).

Meeting those needs supports one's self-concept development and acquisition of well-being. The latter contributes to the successful selection of coping strategies by the employees (Baran et al., 2012). POS even plays a "buffering role [...] in the relationship between such stressors and outcomes such as employee well-being and performance" (Baran et al., 2012, p. 128), showing negative direct relationship with job stress (Bradley & Cartwright, 2002), work-family conflict (Casper, Martin, Buffardi, & Erdwins, 2002) and burnout in form of emotional exhaustion and depersonalization (Jawahar, Stone, & Kisamore, 2007).

OST also helps to understand POS consequences such as employee commitment, employee's orientation toward the organization and work (job-related affect), job involvement, employee performance, avoidance of strains, desire to remain in the organization, avoidance of withdrawal behavior, and well-being (Kurtessis et al., 2017; Rhoades & Eisenberger, 2002).

Employee commitment (continuance, normative and affective) is very important as an outcome of POS. Continuance commitment is developed within OST framework as costs that employee associates if leaving the organization. Normative commitment is a feeling of obligation that the employee expresses to remain within the organization. Finally, affective commitment is an emotional attachment of the employee towards the organization, because of self-identification with the organization and organizational involvement (Allen & Meyer, 1990).

POS is believed to enhance the affective commitment in the long run (Rhoades, Eisenberger, & Armeli, 2001) through affiliation and emotional support (Eisenberger et al., 1986) that increases the desire to help in organizational success (Kurtessis et al., 2017). Affective commitment develops the sense of belonging to the organization incorporating employee role and status into his/her social identity (Rhoades & Eisenberger, 2002).

Job related affect is increased by POS in line with job satisfaction and positive mood towards the job (Rhoades & Eisenberger, 2002; Witt, 1991). Job involvement is increased by POS through employee perceived competence to perform certain tasks

⁹¹ Because of those issues the commitment invoked by the organizational support theory is affective (Kurtessis et al., 2017), which is the emotional attachment felt by employee towards the organization (Allen & Meyer, 1990).

(Rhoades & Eisenberger, 2002). Employee performance is also positively influenced by POS, especially, the performance that goes beyond the assigned job role, which means that employees valuing highly POS of their organization are more willing to engage in extra-role behaviors that are beneficial to the organization such as gaining new knowledge and skills, making suggestions, protecting the organization from risks (George & Brief, 1992; Rhoades & Eisenberger, 2002). Also, high levels of perceived organizational support tend to reduce strains, stressors and withdrawal behavior experienced by employees and increase the desire to remain with the organization that is perceived to give support when needed (Rhoades & Eisenberger, 2002).

Social Identity Theory

The social identity theory (Tajfel, 1974, 1979; Tajfel & Turner, 1986; Turner, 1975) was developed to define intergroup behavior. Since 1970s the theory has attracted scientific attention in the development of four main research lines: stimuli differentiation, cognitive processes in prejudice analysis, discrimination, and social comparison research (in-group and out-group). Those components are fit together to describe the relationship between self and group processes (Hogg, Terry, & White, 1995).

Social identity theory is defined as “social psychological analysis of the role of self-conception in group membership, group processes, and intergroup relations. It embraces a number of interrelated concepts and subtheories that focus on social-cognitive, motivational, social-interactive and macrosocial facets of group life” (Hogg, 2006, p. 111).

The social identity theory states that collective behaviors cannot be explained only focusing on the individual and his/her characteristics, centering on a group as a unit of analysis, where continuous reciprocal interactions happen between the group and the individual forming the “group mind” (Turner & Oakes, 1986). In this case, a group is identified as three or more individuals together sharing common attributes, interests and social identity that are different from other groups⁹². Group membership or group identity is defined by “us” and “we”, who are different from “them” (Hogg, 2006). In turn, personal identity is defined by “I” that is different from others, including dyadic relationship with other special person “me” and “you” (Hogg, 2006).

The social identity theory states that in order to think, behave and feel like a group, the person should develop the sense of belonging to that group (Hogg, 2006). If the group the person belongs to is positively valued by other groups, the self-enhancement and self-evaluation is positive, which contributes to the behavioral intentions that help the group to “prosper” (Fielding, Terry, Masser, & Hogg, 2008). In case of the relationship employee-organization, the employee may engage in extra-role behaviors, if they are considered the ones that help the organization to prosper.

⁹² Any person has many group identities since there are many groups the person belongs to, including many dyadic relationships. However, in any possible situation only one identity is prevailing “to govern self-construal, social perception, and social conduct” (Hogg, 2006, p. 115).

According to the theory, if the employee works in the organization that is positively valued by his/her significant others (friends, family, colleagues) or other social groups, the employee is self-identified with the organization. Organizational norms would encourage certain types of behavior of the employee. Behind the theory there is an argument stating that certain characteristics of social environment motivate individuals to behave in a certain way (Lamm, Tosti-Kharas, & King, 2015).

The employee may not only be identified with the organization, but also with his/her working group, department, union, lunch group, age group, for example (Ashforth & Mael, 1989). The person belonging to a certain group would also behave in accordance with the norms of that group. Group, in this case, can also motivate its members “to exert effort on behalf of the group and its goals” (Hogg, 2006, p. 124), if the self-identification with the group is strong (Hogg, 2006).

In case of organization-employee relationship, social identity theory explains critical constructs of organizational behavior, including employee satisfaction and organizational effectiveness (Ashforth & Mael, 1989). The theory mainly explains the following organizational behavior domains: role conflict, socialization and inter-group relations (Ashforth & Mael, 1989).

Social Cognitive Theory

The social cognitive theory (Bandura, 1977, 1982, 1986, 2001, 2008) is a theory of self-categorization (Turner, 2010) with an accent to a central role of cognitive, vicarious, self-reflective, self-regulatory processes (Bandura, 1989) and observational learning (Bandura, 2008).

The social cognitive theory is based on the concept of human agency⁹³ and cognitive processes. Agency is referred to the acts done intentionally, while cognitive processes are the emergent brain activities of a human being that exert determinative influence to the human behavior (Bandura, 2001).

Agency is explained from three different perspectives: direct personal agency, proxy agency and collective agency (Bandura, 2001). Direct personal agency is referred to as the actions one performs to achieve a certain goal. Proxy agency is the actions one takes to refer to the more powerful other in order to achieve a certain desired goal such as citizens asking the legislative representatives to act on a certain issue, children referring to their parents to solve a certain problem. Proxy agency is also conducted when a significant other has certain powers that one has not in order to achieve desired results. Collective agency, in turn, is referred to the collective powers to achieve certain desired results (Bandura, 2008). “It is people acting conjointly on a

⁹³ “To be an agent is to intentionally make things happen by one’s actions. Agency embodies the endowments, belief systems, self-regulatory capabilities and distributed structures and functions through which personal influence exercised, rather than residing as a discrete entity in a particular place. The core features of agency enable people to play a part in their self-development, adaptation, and self-renewal with changing times” (Bandura, 2001, p. 2).

shared belief, not a disembodied group mind that is doing the cognizing, aspiring, motivating, and regulating” (Bandura, 2001, p. 14).

Cognitive processes include beliefs of self-efficacy (i.e. perceived self-efficacy that one possesses that means the degree of a person’s belief about the capability to control events in his/her life) that determine motivation, affect and action (Bandura, 1989).

The motivation invoked by perceived self-efficacy determines the efforts needed to achieve certain goals. The greater the level of perceived self-efficacy, the more persistent the efforts in overcoming obstacles to achieve the goal are (Bandura, 1989).

The affect is also dependent on perceived self-efficacy. People who are sure of their capabilities in goal achievement (i.e. they have high level of perceived self-efficacy), tend to have low levels of stress and anxiety. In the case of having those negative emotions, people with high level of perceived self-efficacy are more capable of coping with them successfully. (Bandura, 1989). Stress and anxiety are also affecting the action of goal achievement by altering a course of thinking and the nature of it. The more the stress level is, the less probable is the successful execution of the action (Bandura, 1989).

All these factors mentioned above are not the only important triggers for the behavior to happen. In order to decide whether to engage themselves in behavior, people tend to learn from models of behavior through directly experiencing the consequences of their own actions and through observational learning (Bandura, 2008). Direct experience may be tough and inefficient in some cases where there are some limits such as mobility and resources to be engaged in a trial-and-error method. There could simply be no time for that (Bandura, 2008). On the other hand, social learning by observing others’ behavior is more effective in obtaining knowledge and competencies rapidly since there are many model options to choose from (Bandura, 1986, 2008). In addition, when observers extract the quintessence of the modelled behavior, the future performance of such behavior may be rich with moderations and variety of similar behavior aimed at reaching the extracted guiding principle (Bandura, 2008).

For instance, if close friends of the individual recycle their garbage all the time in order to contribute to environment sustainability, once the individual catches the idea why it is done (e.g., to be pro-environmental, to save the environment, to stop the climate change, to stop global warming and species extinction...), he/she may be engaged in not only recycling behaviors, but in more types of green behaviors (e.g., using bicycle instead of the car or/and buying eco-friendly products) in order to be environmentally sustainable. The modelled behavior in this case is contributing to environmental sustainability.

4.2.2. Theories for understanding relationships between individual antecedents and voluntary pro-environmental behavior at work

Recently, in the field of study of voluntary pro-environmental behavior, interest has increased in the theories from social psychology that also provide a theoretical framework for understanding the mechanisms to perform such behavior (Tonglet, Phillips, & Bates, 2004).

From the point of view of social psychology, there is a belief that voluntary pro-environmental behavior may evolve because of two important reasons: self-interest (e.g., minimization of one's own health risk) and concern for others (e.g., satisfying own needs without jeopardizing the future generations to satisfy their need in the future) (Bamberg & Möser, 2007). In both cases, the engagement in any behavior (including pro-environmental behavior) depends on the characteristics of the person who is about to perform or not perform any behavior (Ajzen, 1991; Robertson & Carleton, 2018). Researchers who believe that PEB evolves because they are pro-socially motivated, explain the engagement in PEB with the help of the norm activation model (NAM) (Schwartz, 1977). The others who believe that the main reason of engagement in PEB is self-interest, choose the theory of planned behavior (TPB) (Ajzen, 1991).

Hence, we use TPB and NAM to explain the relationship between employees' voluntary PEB at work and its individual pool determinants. In addition, since the emotions are considered triggers to engage in action (Conway, Tugade, Catalino, & Fredrickson, 2013), the Broaden-and-Build Theory (BABT) of positive emotions is used in this research.

Theory of Planned Behavior

The theory of planned behavior (TPB) (Ajzen, 1985) is a powerful tool when it comes to the prediction of voluntary pro-environmental behavior in the workplace.

TPB emerged from the theory of reasoned action (TRA), being an extension of it (Inoue & Alfaro-Barrantes, 2015). TRA (Ajzen & Fishbein, 1980) claimed that people are rational when performing behavior and they understand the implications of that behavior (Ajzen & Fishbein, 1980).

According to TPB, the actual engagement in any behavior is influenced by three main factors. Firstly, the attitude towards the behavior or the indicator to what extent the evaluation or the appraisal of the behavior is favorable or unfavorable (Ajzen, 1991). The second factor is the subjective norm that is the perception of the social pressure about the behavior (Tonglet et al., 2004). In this case, the fear of exclusion is the main motivator why individuals tend to fulfil social norms and obey social pressure (Bamberg & Möser, 2007). The last factor is perceived control⁹⁴, the perception of the self-ability to perform certain behaviors (Tonglet et al., 2004). This

⁹⁴ The main difference of TRA and TPB is the fact that TPB includes additional psychological construct – perceived behavioral control – that was not included in the theory of planned action (Inoue & Alfaro-Barrantes, 2015).

factor is also assessed after the estimation of consequences of the behavior (Bamberg & Möser, 2007). The general rule proposed by TPB is “the more favorable the attitude and subjective norm with respect to a behavior, and the greater the perceived behavioral control, the stronger should be an individual’s intention to perform the behavior under consideration” (Ajzen, 1991, p. 188).

The attitude towards the behavior is formed from the beliefs people have towards the behavior to be performed, according to the expectancy-value model (Fishbein & Ajzen, 1975). The beliefs people have towards the behavior link it to the outcomes and costs of that behavior (Ajzen, 1991). If those are valued positively, the attitude towards the behavior is positive. This results in probability of being involved in performing that kind of a behavior if other requirements are met.

The subjective norms are normative beliefs towards the rejection or acceptance of the behavior by important groups or individuals of reference (significant others) (Ajzen, 1991). The extent to which those significant others’ opinion of approval or disapproval is important towards certain behaviors, decides the performance of that behavior (Ajzen, 1991).

From the perceived behavioral control perspective, a behavior has a chance to be performed when the person has the ability to decide whether to perform it or not. However, even if some behaviors meet those requirements, there might be other non-motivational issues that may influence the actual execution of the behavior, for example, the availability of resources such as time and money, availability of opportunities, etc. In the case of the existence of those mentioned factors, the person has the actual control over the behavior: if the person wants to perform the behavior and has resources and requirements to do so, most probably the individual will succeed in performing the behavior (Ajzen, 1991).

The significance of actual control over performing the behavior is evident. The behavioral achievement, i.e. the achievement of performance of the behavior, must somehow be dictated by the availability of resources. The perception of such a control⁹⁵ is even more important because of its impact on behavioral intentions and actions (Ajzen, 1991).

Hence, TPB claims that the perceived behavioral control with behavioral intentions can predict the engagement in certain behaviors (Ajzen, 1991). Two supporting points of view of this assumption are the following. The first one states that if the intention is constant, the higher perceived behavioral control is, the more likely the individual is going to perform the behavior. The second one claims that even if the little information about the behavior is available, if the perceived behavioral control is high and realistic, the individual is very likely to engage in performing the behavior (Ajzen, 1991).

⁹⁵ The perception of one’s ability to perform certain behavior, i.e. self-confidence in performing certain behavior, is one of the main influencers of people’s behavior (Ajzen, 1991; Bandura, 1977). It can also influence the choice of activities people engage in, not only one certain behavior (Ajzen, 1991).

All those motivational factors that to some extent force individuals to engage in certain behaviors, are evolving from the desire to avoid punishment and gain rewards. The rational choices we have mentioned earlier are driven by the understanding of consequences of any behavior and the evaluation of those with the consideration of possible approval or disapproval of the performed behavior.

Summing up all the negative and positive perceived consequences of the behavior to be performed, the global attitude towards that behaviors is formed (Bamberg & Möser, 2007; Tonglet et al., 2004; Willuweit, 2009). Some researchers highlight the fact that those attitudes directly influence the engagement in the behavior (Bissing-Olson et al., 2013), including the empirical research results, which show that positive attitudes towards the environment result in pro-environmental behavior (Bamberg & Möser, 2007; Kaiser, Wölfig, & Fuhrer, 1999).

Some critics have found that the predictive power of pro-environmental behavior included in TPB has its limits (Kaiser, Hübner, & Bogner, 2005). One of the reasons is that TPB does not emphasize the importance of moral considerations of the individual (Ruepert et al., 2016) only taking into account perceived behavioral control, attitudes (individual) and social norms (society). However, prior literature have used the TPB to explain environmental workplace behavior (Davis, O'Callaghan, & Knox, 2009), implementation of environmental management policies and practices (Cordano, Welcomer, Scherer, Pradenas, & Parada, 2010), reduction of resource use (Cordano & Frieze, 2000).

TPB is relevant to the current study because of its predictive possibilities when it comes to the identification of individual determinants influencing employees' voluntary PEB at work in the bond "individual determinants-employees' voluntary PEB" as we have seen from prior literature (Cordano & Hanson Frieze, 2000; Lülfs & Hahn, 2013), which may indicate the managers how to promote certain behavioral traits among employees.

Norms Activation Model

The core of the Norm Activation Model (NAM) (Schwartz, 1977) is the concept of personal norms that predicts individual behavior (Onwezen, Antonides, & Bartels, 2013). NAM claims that the role of standards of behavior for individuals is taken from personal norms, which are generated from internalized values (Lülfs & Hahn, 2013; Schwartz & Howard, 1981).

NAM is useful to explain altruistic behavior. This behavior is that driven by altruistic motivation, which "refers to intentions or purposes to benefit another as an expression of internal values, without regard for the network of social and material reinforcements" (Schwartz, 1977, p. 222). Altruistically motivated behavior include helping and sharing that could be also called prosocial behaviors (Schwartz, 1977). The prosocial behaviors are those aimed at benefitting others (Aronson, Wilson, & Akert, 2005; De Groot & Steg, 2009).

The engagement in helping and sharing behavior could be explained by various factors. One of those is the emotional or empathic arousal that is experienced directly because of the perception of need or suffering of others. This arousal is a psychological component that could be called empathy, which is derived without self-consciousness (Schwartz, 1977).

Another explanation of the helping behavior could be the activation of social expectation that is triggered by the continuous exposure to the need of others. Those social expectations that are guiding the behavior are learned in the process of socialization. If the social expectations are not met, the individual is a subject for a mediated sanction (Schwartz, 1977). In other words, if the behavior is not performed, the person is sanctioned. Even if the sanctions are remote and even improbable, the non-performance of the expected behavior is not approved by the society to a certain degree. This type of the behavior could also be called compliance behavior if to take out the altruistic component of such, meaning that the behavior is activated on the basis of compliance with social norms, performing such behavior because of the social expectations (Schwartz, 1977).

According to NAM, the explanation of the engagement in altruistic behavior could also be found in the activation of self-expectations. In this case, the need of others may activate internal values and norms of the individual, engaging him/her in helping behavior regardless of the external motivators (Schwartz, 1977). For NAM, self-expectations play a key role because “helping is altruistic only to the extent that it is motivated by internal values” (Schwartz, 1977, p. 223), being experienced, in this case, as a moral obligation when the need of other is activating personal moral norms and values (Schwartz, 1977).

Those three factors (empathic arousal, social expectation and self-expectation) are not mutually exclusive, indeed, acting together simultaneously or jointly they provoke the engagement in helping behavior (Schwartz, 1977).

Genetic explanations should also be mentioned as drivers of helping behaviors. The genetic explanations explain “how particular dispositions for prosocial behavior might provide a genetic advantage” (Schwartz, 1977, p. 226). The genetic explanations do not focus on the process of engagement in helping behavior or motivational factors of it, studying the predispositions of action. In this case, the main argument is that any certain behavior is genetically selected because it serves the interests of the performer of the behavior or of the group the performer belongs to, those interests being long-term survival. The term altruism is not quite relevant because genetic explanations state that the behavior is performed for the good of the survival of the performer, not to benefit others (Power, 1975; Schwartz, 1977). If the others are obtaining advantages from the performed behavior, this happens because the actor belongs to that group.

As can be seen from the previous discussion, the NAM is constructed of three basic concepts: obligation, activation and defense proposition.

Altruistic behavior is influenced by the degree of intensity of personal obligation felt towards specific helping behavior. Those feelings are formed by personal values

and norms and could be neutralized by defenses that value relevance and appropriateness of such obligations (Schwartz, 1977). In other words, obligation here is referred to as personal norms.

Activation within the framework of NAM is the awareness of the individual, including environmental awareness of the individual (whether he/she is aware of environmental issues and his/her acting) (De Groot & Steg, 2009).

Finally, a defense proposition may be derived from the ascription “of responsibility for the negative consequences of not acting prosocially” (De Groot & Steg, 2009, p. 426), if the behavior is not appropriate or not relevant. In other words, if not performing the behavior is not leading to the negative consequences, the moral obligation here is neutralized.

NAM theory assumes that personal norms are always present in one’s personality, even if not always active. In order to activate the personal norm and transform it into a behavior or value later on, there should be a trigger to pull (Lülfes & Hahn, 2013). The trigger may come from the responsibility felt towards something. It is believed that this kind of responsibility causes action only if individual i). is aware that the harmful consequences of not taking action are present (Stern, Dietz, & Black, 1985); ii). is concerned that the action is needed to solve certain problems (Lülfes & Hahn, 2013); and iii). understands that he/she is able/not able to perform the behavior towards helping the environment (perceived behavioral control) (Lülfes & Hahn, 2013). If the consequences are understood the issue could become a moral norm⁹⁶ – i.e. converted to the values and attitudes towards the object of concern.

Pride and guilt are also associated with NAM. In this case, the obligation refers to past commitment towards certain norms. Obligations are felt prior to behavior. Pride and guilt, however, are responses to an action and can only be anticipated (Schwartz, 1977).

The sense of guilt is a negative self-evaluation, which is defined as “an aversive feeling that leads individuals to compensate for past behaviours that induced guilty feelings” (Onwezen et al., 2013, p. 143). However, since altruistic behavior sometimes is an act of self-sacrifice, the interest of the theory is not in the sign of the self-evaluation (positive or negative). The importance lies in activation of prosocial behaviors because of the feelings of guilt and pride (Schwartz, 1977). Guilt is found to be involved in prosocial behaviors such as caregiving and altruism (Tracy & Robins, 2004).

Some examples of altruistic behavior considered by NAM are: donation of organs to the family members, volunteering, monetary donations to the Red Cross (and like centers), blood donation (Schwartz, 1977), giving money to homeless people, and collecting blankets for countries hit by a natural disaster (De Groot & Steg, 2009). The NAM offers the perfect explanation in the description of activation of environmental

⁹⁶ Some researchers (Onwezen, Antonides, & Bartels, 2013) also associate the determinants of those personal norms with awareness of consequences because performing-not performing certain behaviors may arise feeling of responsibility towards the performance of certain behaviors (Schwartz, 1977).

norms for considering how individuals are acting in a pro-environmental way too (Blamey, 1998).

The explanation of pro-environmental behavior through NAM is a little more complex since eco-friendly behaviors are related to personal lifestyles (Carlsson-Kanyama, 1998). Even if people in general prefer to live in a clean environment, environmentally unfriendly behaviors are performed sometimes (Onwezen et al., 2013). In this case, engagement in pro-environmental behaviors would be best explained through the concepts of anticipated pride and guilt described above, “because these emotions are evoked after evaluations of specific behaviour, and they subsequently focus individual attention on specific behaviour (instead of the entire self)” (Onwezen et al., 2013, p. 143).

Anticipated emotions are very important since people are “capable of anticipating which emotions they will experience in anticipation of future outcomes” (Onwezen et al., 2013, p. 142). The complicated point is that anticipated emotions are usually overrated, in other words, the consequences are more dramatic than will occur in real life. However, since anticipated emotions are important in decision-making (Mellers & McGraw, 2001), they need to be taken into account, especially, when it comes to guilt, since that feeling was classified as a negative emotion. People tend to avoid negative emotions and strive to experience the positive ones (Frijda, 2007a; Onwezen et al., 2013).

In addition, pride and guilt in line with shame are considered as self-conscious emotions (Tracy & Robins, 2004), meaning that they are provoked by the standards that one fails or succeeds in following (Onwezen et al., 2013; Tracy & Robins, 2004). Those standards are personal and social ones. Since any individual is usually very concerned about “losing social status in the eyes of others” (Tracy & Robins, 2004, p. 103), every social act is influenced by pride, guilt or shame, among others.

Since pride and guilt are grounded in commitment to personal norms (Schwartz, 1977), if an individual’s personal norms included pro-environmental views, probably, not being engaged in altruistic behavior towards the environment would provoke the sense of guilt and shame, which will be more dramatic in anticipation. Since those are negative emotions, the individual would be trying to avoid them, though, being engaged in that pro-environmental behavior that may result in a feeling of pride (Onwezen et al., 2013). This is the effect of personal norms on engaging in voluntary PEB.

The effect of social norms could not be omitted in this case. Social norms affect performing PEB by social pressures, i.e. fear of social sanctions (Bamberg, Hunecke, & Blöbaum, 2007; Onwezen et al., 2013; Schwartz, 1977). Also, if a person performs the behavior that is not socially accepted or is not under the perceived social norm, the feeling of guilt is activated, which provokes the activation of personal norm (Bamberg et al., 2007; Onwezen et al., 2013). For instance, in a study of voluntary recycling the participation of households were higher where the individuals had stronger moral and social preferences (Briguglio, Delaney, & Wood, 2016).

As Onwezen et al. (2013, p. 151) point out, “individual personal norms regarding the environment are used to evaluate whether personal behaviour is right or wrong and are subsequently used to forecast which emotions one will experience”. Those emotions felt in anticipation predict future behavioral performance.

Broaden-and-Build Theory

Broaden-and-build theory (BABT) (Fredrickson, 1998, 2001, 2004) is a theory from the area of psychology (Fredrickson, 1998) that is based on the concept of positive emotions.

Emotions are defined as “multicomponent response tendencies that unfold over relatively short time spans” (Fredrickson, 2001, p. 218). Typically, emotions are produced when a person reacts to a certain event that has a personal meaning to the individual. The process of the reaction is conscious or unconscious (Fredrickson, 2001). In other words, some events may be touching and meaningful for us whether we realize it or not. When the event is meaningful, the reaction launches a group of emotions that result in a change of facial expression, subjective experience, cognitive processing and psychological condition (Fredrickson, 2001).

Emotions may be positive or negative, and are usually grouped into emotion families such as fear, anger, joy, love or interest (Fredrickson, 2001).

Positive emotions include the component of positive affect (Fredrickson, 2001). Affect could be defined as “consciously accessible feelings” (Fredrickson, 2001, p. 218), being present in physical sensations, moods, attitudes (Fredrickson, 2001). One of the main differences of affect and emotion is that affect is long-lasting, whereas emotion is a short-term experience (Fredrickson, 2001).

Positive affect is claimed to encourage individuals to engage in activities and interact with their environments. In other words, positive affect motivates individuals to interact and perform activities that are anticipated to bring positive affect and emotions again (Fredrickson, 2001).

Emotions are usually linked with specific behavioral outcome relations such as fear-urge to escape, anger-urge to attack, disgust-urge to expel (Fredrickson, 2001; Frijda, Kuipers, & Ter Schure, 1989; Levenson, 1994), because “people's ideas about possible courses of action narrow in on a specific set of behavioral options” (Fredrickson, 2001, p. 219).

Usually, those behavioral outcomes are universally applicable, meaning that any individual experiencing fear would try to escape from the situation where fear is felt. Those kind of links were developed long ago when human beings' instincts were establishing to provide the survival of the species (Fredrickson, 2001; Tooby & Cosmides, 1990). The emotions from the point of view of evolution were previously described as triggers to engage in action. For instance, fear was the signal to hide, anger to attack, and so on. Those are negative emotions. However, the role of positive emotions was generally neglected (Conway et al., 2013).

Positive emotions are “fuel flexible and creative thinking and problem-solving approaches” (Conway et al., 2013, p. 18). They broaden our thoughts, activities and relationships: “positive emotions, relative to negative emotions and neutral states, widen the array of thoughts, action urges, and percepts that spontaneously come to mind” (Fredrickson, 2013, p. 17). That results in the building of enduring personal resources such as social support, resilience, skills and knowledge. All those invoke enhanced health and fulfillment. That in turn produces more experiences of positive emotions creating an upward spiral (Cohn & Fredrickson, 2009; Fredrickson, 2013).

Because of the importance of the impact positive emotions can have on individual behavior the broaden-and-build theory was formulated. This theory considers the role of positive emotions in our lives, contributing to the understanding of their nature, origins and consequences (Conway et al., 2013) claiming that “positive emotions function to enlarge our cognitive, attentional, and motivational scope beyond basic needs in the present moment” (Cohn & Fredrickson, 2006, p. 39). The theory adds knowledge to the study of human flourishing, stating that “the capacity to experience positive emotions may be a fundamental human strength” (Fredrickson, 2001, p. 218).

The ten important positive emotions⁹⁷ that are frequently expressed during person’s life are joy, gratitude, serenity (contentment), interest, hope, pride, amusement, inspiration, awe and love (Fredrickson, 2013). They were identified as “broaders” of individual momentary thought-action process and “builders” of individual of enduring personal resources (Fredrickson, 2001), “which function as reserves to be drawn on later to manage future threats” (Fredrickson, 2001, p. 220). In addition, recourses created during the experience of positive emotions are durable.

For instance, joy broadens by creating urge to play and be creative through pushing the limits (Fredrickson, 2001; Frijda et al., 1989). Interest, in turn, creates the need to explore and find new information expanding one’s self (Fredrickson, 2001; Ryan & Deci, 2000). Pride, for example, leads to the urge to share news of achievement, the person is proud of, and try to acquire greater achievements in the future (Fredrickson, 2001; Lewis, 1993).

Each of them creates (or builds) skills that person acquires. For instance, joy creates skills gained from experimental learning; gratitude – skills for showing care, loyalty, creation of social bonds; serenity – possibility to view new priorities and self; interest results in knowledge; hope leads to optimism and resilience; pride heads to motivation and achievement; amusement induces creation of new social bonds; inspiration introduces motivation; awe results in new worldviews; and love produces all of the resources mentioned above, especially, social bonds creation (Fredrickson, 2004, 2013).

Positive emotions build personal resources (Fredrickson, 2001, 2004). The sense of contentment, joy and happiness are positive emotions that may lead to building enduring personal resources “ranging from physical and intellectual resources to social and psychological resources” (Fredrickson, 2001, p. 219).

⁹⁷ Some examples of negative emotions may be anxiety, anger and sadness (Fredrickson, 2004).

According to BABT, the power of positive emotions is so high that they are able to cancel the posterior effects of negative emotions that the person may have experienced, functioning as an antidote (Fredrickson, 2001).

Also, positive emotions fuel individual psychological resilience and well-being (Fredrickson, 2001) as a result of the ability of positive emotions to undo the negative ones. The development of psychological resilience as an enduring personal resource may influence the increased ability of the individuals to exit stressful situations efficiently with minimum psychological damage (Lazarus, 1993). The increased state of psychological well-being may increase physical health because of positive emotions (Fredrickson, 2000). Some studies also claim that chronic stress may be reduced and coped with due to the experience of positive affects (Folkman, 1997; Folkman & Moskowitz, 2000).

BABT supports the idea that positive emotions are experienced by the individual in accordance with an upward spiral flow, meaning that the more individual is experiencing positive emotions from the action he/she is performing, the more willing to engage in that action once more to feel those positive emotions again (Fredrickson, 2001). Those emotional spirals have positive effects on their own, increasing the impact of positive emotions, which results in improved emotional well-being (Fredrickson, 2001). On the other hand, a downward emotional spiral is clinically tested to be the cause of depression (Fredrickson, 2001; Peterson & Seligman, 1984).

Efficiency and effectiveness of BABT in psychological research is huge because of its focus on positive emotions that were long neglected in prior literature (Fredrickson, 2001, 2004). The significance of positive emotions for psychological and even physical well-being of human beings is immense, since positive emotions “(i) broaden people’s attention and thinking; (ii) undo lingering negative emotional arousal; (iii) fuel psychological resilience; (iv) build consequential personal resources; (v) trigger upward spirals towards greater well-being in the future; and (vi) seed human flourishing” (Fredrickson, 2004, p. 1375), as can be seen from the discussion made above.

According to BABT, positive emotions broaden our awareness of the surrounding world, helping to modify our values, making them, for instance, more pro-environmental and respectful to the world in the long-run, emphasizing the importance of intrinsic goals over extrinsic ones (Carter, 2009; Junot, Paquet, & Martin-Krumm, 2017).

Harmonious passion is claimed to be a positive emotion in itself. It also results in further positive emotions of the individual when developing such passion towards the object of passion⁹⁸ (Vallerand, 2015; Vallerand et al., 2003, 2007). Positive emotions lead to the behavior that permits the individual to continue experiencing those positive emotions (Fredrickson, 2001). An individual having harmonious environmental passion would perform pro-environmental behavior. The result of the behavior would be the experience of positive emotions.

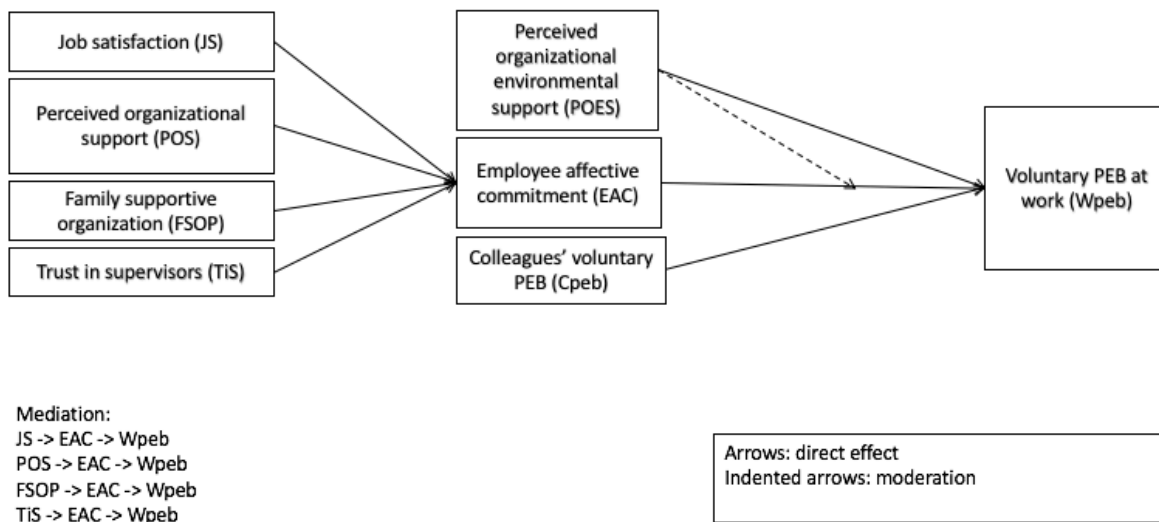
⁹⁸ In this research, harmonious passion is towards the environment.

4.3. Hypotheses development

4.3.1. Hypotheses development: organizational context-induced antecedents of employees' voluntary pro-environmental behavior at work

In the current section we explain the dependencies we propose between the organizational context-induced antecedents (Figure 4.2) of the model proposed for this research.

Figure 4.2. Organizational determinants



Source: author's own elaboration.

4.3.1.1. Employee affective commitment and employees' voluntary pro-environmental behavior at work

Employee commitment is defined as an affective response of the employee to the organization that attaches the person to the organization he/she works for (Mottaz, 1988). It is described as the worker who “stays with the organization through thick and thin, attends work regularly, puts in a full day (and maybe more), protects company assets, shares company goals, and so on” (Meyer & Allen, 1997, p. 3).

Prior literature has underlined the fact that commitment seen as a relationship between employee and other entity (e.g., organization) may take different forms, meaning that the very nature of commitment may vary (Allen & Meyer, 1990; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Authors (Meyer & Allen, 1997; Mowday, Steers, & Porter, 1979) argue that an employee may be committed to the organization itself (the idea whether employee goals are in line with organizational goals) or to the course of action (such as maintaining their work position within the organization). In the first case the commitment developed is the attitudinal commitment and in the second case the commitment developed is behavioral commitment (Meyer & Allen, 1997). However, both views accept commitment as a

psychological state where the employee develops commitment towards the organization or course of action (Meyer & Allen, 1997).

As a psychological state, commitment is a very complex phenomenon to describe, since the triggers that provoke commitment in employees may differ. According to the existing definitions, the reasons why an employee may experience commitment vary throughout prior works (Meyer & Allen, 1997), identifying three different commitment types: affective, continuance and normative commitment (Allen & Meyer, 1990). Those types are better called components, because all three of them could be experienced by employees in the variation of the extent throughout the duration of employee-organization relationships (Meyer & Allen, 1991).

Affective commitment can be defined as “a partisan, affective attachment to the goals and values of an organization, to one's role in relation to goals and values, and to the organization for its own sake, apart from its purely instrumental worth” (Buchanan, 1974, p. 533).

Continuance commitment is focused on cost-based orientation, being defined as “a structural phenomenon which occurs as a result of individual-organizational transactions and alterations in side bets or investments over time” (Hrebiniak & Alutto, 1972, p. 556). It can be described as a cost-benefit analysis where the lower the costs of staying, the longer employee will actually be staying with the organization.

Normative commitment is the commitment that develops because of the obligation, duty and moral responsibility felt towards the organization. It can be defined as “the totality of internalized normative pressures to act in a way that meets organizational interests” (Wiener, 1982, p. 418).

Each of the components, however, produce different outcomes.

Affective commitment, for instance, results in emotional attachment to the organization and the great willingness to “contribute meaningfully to the organization” supporting its goals and objectives. Affective component of commitment felt by employees towards the organization results in higher in-role job performance, lower absenteeism, and even higher willingness to be engaged in extra-role citizenship behaviors (Meyer & Allen, 1997, p. 24).

Prior literature of extra-role behaviors has demonstrated positive relationships between affective commitment and self-reported citizenship behavior (Meyer, Allen, & Smith, 1993). Some studies (Organ & Ryan, 1995) have even showed that affective employee commitment positively affected altruistic behaviors towards specific members of the organization and also generalized compliance with organizational norms and rules.

The consequences of continuance commitment, however, are not the same. Employees whose attachment to the organization is based on a continuance component are staying within the organization just because doing otherwise would result in higher costs. In addition, employees bounded by continuance commitment are poorer

performers and are less likely to engage in extra-role behaviors (Meyer & Allen, 1997).

Even if normative commitment motivates employees to behave correctly and to do what is right, the developed attachment to the organization is very modest in comparison with affective commitment (Meyer & Allen, 1997). Normative commitment lacks enthusiasm and involvement and sometimes results in resentment with respect to their feeling of indebtedness or obligation towards the organization they work for (Meyer & Allen, 1997).

The employee affective commitment is a very important concept for organizations because it affects various areas of the working process such as retention (e.g., turnover, turnover intention, withdrawal behaviors), productive behaviors (e.g., attendance, performance, in-role and extra-role behaviors), employee well-being (e.g., employee health, career progress) (Karsh, Booske, & Sainfort, 2005; Meyer & Allen, 1997; Meyer et al., 2002).

The social exchange theory (Blau, 1964) also helps to identify and understand the factors that result from employee affective commitment. Since the SET also considers social exchange based on voluntary actions performed by both parties (in this case, employee and organization) to make social exchange and the norm of reciprocity (Blau, 1964), voluntarism and altruistic behaviors are more related to the affective component of the employee commitment.

Some studies (Cook, Cheshire, Rice, & Nakagawa, 2013; Emerson, 1976) note that the employee is expecting a certain type of behavior from the organization such as provision of a work setting where the skills, experiences and knowledge of the employee could be used, the desires satisfied and goals achieved. If the organization is successful in providing all those points, in exchange the worker shows high levels of commitment, including affective commitment, contributing to the achievement of organizational goals. If the organization fails to provide necessary ends, commitment levels tend to decrease (Steers, 1977).

Social exchange theory states that employee affective commitment can be a function of “work rewards and work values” (Mottaz, 1988, p. 470), such as task (job done), social (interacting with others while doing a job) and organizational rewards (pay, promotions, security, fringe benefits, good working conditions).

Since the concept of employee commitment is very important for the functioning and well-being of the firm, the determinants of employee affective commitment were studied in deep (e.g., Allen & Meyer, 1990; Rhoades et al., 2001). Overall, the determinants could be grouped in two main categories: organizational and individual characteristics (Mottaz, 1988). It is believed that factors of organizational characteristics affect employee affective commitment much more than individual ones (Mottaz, 1988).

Some of the employee commitment determinants studied in previous research are job satisfaction, job involvement (Güteryüz & Aydm, 2015; Meyer & Allen, 1997; Meyer et al., 2002), organizational identity, need for affiliation, perceived external

prestige, person-organization fit (Güteryüz & Aydm, 2015), trust (Dirks & Ferrin, 2002), supervisor support, perceived organizational support (Rhoades et al., 2001), empowerment, procedural equity perceptions, transformation-oriented leadership, public service-oriented motivation (Park & Rainey, 2007), spiritual intelligence and intrinsic motivation (Udin, Handayani, Yuniawan, & Rahardja, 2017).

For our research we have taken the job satisfaction, perceived organizational support, family supportive organizational perceptions and trust in supervisors as antecedents of employee affective commitment because those variables are studied in various contexts, but not extensively in the context of voluntary PEB at work.

Job satisfaction and employee affective commitment

Nowadays the majority of employees are looking for much more than decent pay at the end of the working period. The combination of factors such as self-esteem or respect on the job, opportunity for growth, prestige of job inside and outside the company, amount of close supervision, opportunity for independent thought, feeling of security, variety and freedom on the job, opportunity for promotion, participation and helping others, to name just a few, compose the concept of job satisfaction (Wanous & Lawler, 1972).

There is no one universal definition of the concept of job satisfaction. That happens because various aspects of job satisfaction mentioned above are combined in different versions resulting in different measures (Gruneberg, 1979). According to Locke (1976), job satisfaction is defined as a positive emotion towards one's job resulting from a positive job experience, appraisal and evaluation of what is obtained versus what was expected. However, other authors (Spector, 1997, p. 2) provide a broader definition claiming that job satisfaction can be defined "as a global feeling about the job or as a related constellation of attitudes about various aspects or facets of the job", including positive (satisfaction) and negative (dissatisfaction) feelings about their jobs (Spector, 1997).

Job satisfaction is experienced due to the factors derived from the working environment. When these factors are present, the levels of satisfaction increase or stay the same. When the factors disappear or diminish, dissatisfaction may be obtained as a result (Hoppock, 1935). The factors increasing satisfaction may be autonomy at work, opportunities for further education, good relation with colleagues, challenging work, responsibility, achievement and recognition (Herzberg, Mausner, & Snyderman, 1959; Westover, 2010).

The importance of the job satisfaction to organizations is huge. Employees with the high levels of job satisfaction express positive feelings towards their work (Glisson & Durick, 1988; LePine, Colquitt, & Wesson, 2014). This results in an employee's decision to continue working in the company rather than leave it. If job satisfaction is high, the turnover intent is low, which saves the costs of hiring new employees and the costs associated with the loss of the current trained employee

(Lambert & Hogan, 2009). Also, employees satisfied with their jobs have higher levels of productivity (Savery, 1996) and performance (Schwab & Cummings, 1970).

Job satisfaction is believed to strongly and directly affect employee affective commitment by the logic of social exchange theory. As we have pointed out previously, SET states that interdependent exchange happening between two parties (in our case, organization vs employee) has the ability to generate high-quality relationships between those parties based on reliable, devoted and bilateral commitment and high levels of trust (Blau, 1964). In order to be successful, the interdependent exchange happening between two parties has to follow reciprocity and negotiated rules to reach some beneficial results (Cropanzano & Mitchell, 2005). Particularly, if the employee feels that the organization is taking care of its workers, he/she will most probably be involved in effective work behaviors and positive attitudes towards work and the organization (Cropanzano & Mitchell, 2005), including the feeling of job satisfaction.

The favors made by one party result in the obligation of the second party to return the favor eliminating the possibility to bargain the return, creating social patterns that do not have an exact quantitative price (Blau, 1964).

Job satisfaction is a perfect product for social exchange for affective commitment. If the organization provides the working conditions that nourish job satisfaction, employees would feel the need to return the favor in terms of effective work. Since the relationship is a social pattern rather than a one-time action – i.e. it is a repeated exchange with the same party within a certain time frame (Cook et al., 2013), the job satisfaction would result in employee affective commitment.

In other words, if the worker is satisfied with his/her job, it is more likely that he/she is willing to perform the job better and remain with the organization longer, trying to pay back the organization that treats its employee well or simply unwilling to leave the place where the individual is happy.

Some studies also support the idea that job satisfaction positively affects employee affective commitment. For instance, Imam, Raza, Tehseen Shah, & Raza (2013) found that job satisfaction claimed to have the greatest impact on employee affective commitment in comparison with other commitment components (continuance and normative commitment) in the study of the banking sector of Pakistan. Lambert & Hogan (2009) claim that job satisfaction positively affects employee commitment⁹⁹ more than other variables under the study focus such as work environment variables (e.g., role conflict, dangerousness and role ambiguity) and personal characteristics (e.g., tenure position, age, gender and education level). The study was conducted at a private Midwestern maximum security prison among facility staff (except upper administration), using a sample of 160 employees. Yew (2008) in a study in tourism sector in Sarawak, Malaysia, claim that job satisfaction, together with the salary, is

⁹⁹ In this study, organizational commitment component is not specifically mentioned, however, the scale used is clearly aimed at affective commitment.

positively related to affective commitment, using a sample of 99 employees from various levels such as the managerial, executives/supervisors and general staff.

Considering all the arguments described above, the following hypothesis is stated:

Hypothesis 1: Job satisfaction positively affects employee affective commitment.

Perceived organizational support, family supportive organizational perceptions and employee affective commitment

Social support could be described as “the information leading the subject to believe that he is cared for and loved, esteemed, and a member of a network of mutual obligations” (Cobb, 1976, p. 300).

Social support is a broad term that includes many dimensions such as provision, expressive or instrumental, given by the community, partner, social networks (Lin, 1986), being classified into direction type (given or received support), availability of support, description of the term and satisfaction with support provided, content of support and network from which the support is received (Tardy, 1985).

The concept of social support in the workplace could be described as the level of care of the organization to the general well-being of the employee and the help available in the organization for the social issues (Kossek, Pichler, Bodner, & Hammer, 2011).

Perceived organizational support (POS) refers to the employee’s perception of the extent to that organization values his/her contributions and work (Eisenberger & Stinglhamber, 2011), and cares for their well-being (Lamm et al., 2015), providing fair working conditions (Aguilera, Rupp, Williams, & Ganapathi, 2007), among other things. POS processes include personification of the organization, organizational discretion, organizational sincerity, organizational embodiment, felt obligation, reward expectancy, socio-emotional need fulfillment and anticipated help when needed (Eisenberger & Stinglhamber, 2011).

POS is closely linked with the concept of organizational perceived justice. Through perceived justice, employees can assess fairness of distribution of outcomes with respect to the inputs one made, which is important when valuing such issues as organizational bias and fairness of outcome distributions (Gilliland, 1993). If the distribution is fair, non-biased and consistent, the employee is encouraged to behave in the same way (Gilliland, 1993), continuing the behavioral pattern that led to the fair reward. In this case, positive emotions towards the perceived organizational support are experienced (Gilliland, 1993).

Perceived fair working conditions positively affect various outcomes on the employee well-being level as well as on the organizational level. If the perceived fairness in the workplace is present, employees are happier and work harder

demonstrating commitment to the organization they work for and, in turn, unjust working conditions may result in vengeful behaviors and a lower level of productivity (Aguilera et al., 2007).

Companies may use perceived organizational support as a tool for enhancement of commitment and sense of belonging to the organization, since according to the organizational support theory, the positive organizational evaluation of the employee contributions and work provokes positive employee reactions (Eisenberger & Stinglhamber, 2011). As we have noted before, through POS, the sense of belonging of the employees to the organization may be increased, resulting in better performance and willingness to engage in behaviors that help to achieve organizational well-being as a reciprocal behavior for the previously experienced positivity received from the organization (Eisenberger & Stinglhamber, 2011).

Likewise, the negative norm of reciprocity exists when an employee is willing to behave negatively as an answer to the negative treatment, stated differently, performing acts of revenge and vengeance – which explains SET (Alt & Spitzack, 2016; Eisenberger & Stinglhamber, 2011).

OST develops the idea further, claiming that employees are willing to be committed to the organization if they feel that POS is present (Eisenberger & Stinglhamber, 2011; Rhoades & Eisenberger, 2002). Through POS, employees can understand if the organizational justice and perceived fair working conditions exist (Rhoades & Eisenberger, 2002) in line with other perceived items, such as value for the work and efforts that employees contribute to the organization. The presence of POS creates sort of obligation to care for the organization (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001). However, the obligation is created through the positive norm of reciprocity (Gouldner, 1960), being a positive feeling. This positive obligation can be an affective commitment felt towards the organization (Eisenberger et al., 2001).

In addition, POS may positively influence employee affective commitment through the embodiment of job role and status within employee's social identity (Rhoades et al., 2001). Perceived organizational support for employee's efforts and contributions can fulfill the need for self-esteem, affiliation and emotional support (Armeli, Eisenberger, Fasolo, & Lynch, 1998). As a result, "such emotionally satisfying experiences may lead employees to identify the organization's well-being with their own and feel emotionally bound to the organization" (Rhoades et al., 2001, p. 827), developing affective commitment in employees.

POS can also result in positive behavioral traits (such as job performance, creativity and innovation, customer service), in subjective employee well-being (such as positive mood at work), and in positive orientation towards the organization and work itself (such as commitment including affective commitment, identification with the organization, job involvement) (Eisenberger & Stinglhamber, 2011).

Some research also supports the idea that POS positively affects employee affective commitment. The longitudinal study conducted for 2 years with 333

respondents and for 3 years among 226 respondents claims that POS positively affects affective commitment over time (Rhoades et al., 2001). The respondents were alumni of the university in the eastern United States. Lee & Peccei (2007) also confirmed a strong positive effect of POS on employee affective commitment through the analysis of data from employees of two Korean banks (bank A and bank B), obtaining 545 and 480 responses respectively. The research was a part of the project aimed at examining the impact of the financial crisis in 1997 and posterior downsizing that was experienced by banking sector employees.

Considering all the arguments described above, the following hypothesis is proposed:

Hypothesis 2: Perceived organizational support positively affects employee affective commitment.

Family-supportive organizational perceptions can be seen as one of the perceived organizational support variations.

Nowadays, work-family balance of employees is very important for companies. The workforce and family compositions are changing, since there are more working single parents with children or couples with children where both of the parents are working, which adds up household responsibilities in line with work responsibilities (Allen, 2001; Gilbert, Hallett, & Eldridge, 1994). As a response to the changes in family life of the employees, some organizations may implement programs and policies to support their employees in performance of both roles and avoid role-conflict such as “flexible work schedules, child-care referrals, and leaves of absence” (Allen, 2001, p. 414). It is found that employees with work-family conflict have low levels of commitment and job satisfaction (Eisenberger & Stinglhamber, 2011). On the contrary, work-family benefits may raise employee morale and attract valuable workforce (Allen, 2001).

Family-supportive organizational perceptions (FSOP) refer to the degree of how the organization is perceived as family-supportive in employee’s eyes (Allen, 2001). This involves helping the social environment by providing direct and indirect work-family facilities, helping and supporting employees in order to avoid work-family role conflict, establishing special work-family policies at the workplace (Kossek et al., 2011) and being able to address personal issues at work (Wayne, Casper, Matthews, & Allen, 2013).

Being family supportive, the organization stands out as a coping mechanism, helping the employees to balance work and family roles, providing two types of FSOP – family supportive policies and family supportive supervisors (Thomas & Ganster, 1995). Family supportive policies are the activities aimed at balancing everyday family responsibilities (such as flextime and childcare services), while the family supportive supervisor is the one who engages in an employee striving to balance work and family responsibilities to achieve the perfect balance between them (Allen, 2001). However,

even if the family-supportive policies are available, the supervisor may not follow them explicitly (Allen, 2001).

The reaction of the employee to FSOP is very important to organizations. Successful family supportive policies most probably result in job satisfaction, organizational commitment, lower turnover possibilities, higher productivity and lower absenteeism (Allen, 2001; Bourg & Segal, 1999; Wayne et al., 2013). As for POS, the social exchange theory and organizational support theory perfectly explain the relationship between FSOP and affective commitment.

According to SET, the employee working in a family supportive environment can feel that the organization is helping to solve a worker's personal matters by the provision of care and support to his/her family needs. As a result, the reaction to such feeling is being grateful and comfortable, showing positive attitudes and behavioral traits towards the organization as an exchange to the organizational caring (Blau, 1964). Hence, family supportive organizational environments can result in favorable work attitudes and the strong feeling of attachment to the organization (i.e. employee affective commitment) (Allen, 2001; Wayne et al., 2013).

According to OST, if the organization provides POS and caring for the employee, in this case, with regard to employee family needs, affective commitment is developed in exchange as a positive norm of reciprocity (Eisenberger et al., 1986; Eisenberger & Stinglhamber, 2011; Rhoades & Eisenberger, 2002; Rhoades et al., 2001).

Consequently, we hypothesize that high levels of FSOP result in employee affective commitment. The idea is also supported by prior research. For example, Thompson, Jahn, Kopelman, & Prottas (2004) in a study conducted among 98 organizations found that perceptions of organizational family support were significantly related to affective commitment. Butts, Casper, & Yang (2013) through meta-analytical research found that work-family support policies positively influence work outcomes, including employee affective commitment. Also, Bourg & Segal (1999) in the case of military personnel found that perceived army policy support for families results in high soldier's commitment, including affective commitment, grounding the results on the data collected in 1989 as a part of the Army Family Research Program.

Considering all the arguments described above, the following hypothesis could be stated:

Hypothesis 3: Family supportive organizational perceptions positively affect employee affective commitment.

Trust in supervisors and employee affective commitment

Trust¹⁰⁰ is an attitude towards something or someone expressed by the willingness of vulnerability towards the object of trust based on the previous experience (Colquitt, Scott, & LePine, 2007; LePine et al., 2014) that contributes to the long term social relationships (Eisenberger & Stinglhamber, 2011) and long-term organizational efficiency and effectiveness (Inelmen, 2009).

Trust as a multi-dimensional concept that could be disposition-based (general willingness to trust others), cognition-based (rationally analyzed trustworthiness of the object of trust) and affect-based (depends on the feeling to the trustee rather than rational analysis) (Iverson, Mcleod, & Erwin, 1996; LePine et al., 2014). Trust components include five essential elements: integrity (honesty and truthfulness), competence (technical knowledge and skills), consistency (reliability, predictability and good judgement), loyalty (benevolent motives) and openness (willingness to share information and ideas) (Schindler & Thomas, 1993).

The concepts of trust and risk are closely linked, but different in the sense that the first includes the latter: if someone is buying a product from a trusted company they assume the risk it brings and is willing to accept it. The same happens when the individual accepts a job in a trusted organization (Paillé, Morelos, Raineri, & Stinglhamber, 2017). If trust is present towards the organization where the person works, though, the employee gains the ability to perceive manager words as true and ethical (Lyman, 2003) leaving out the possibility of questioning management instructions and debating hardly on them. Obviously, in the workplace some level of trust is always present (Spector, 1985). However, the higher the trust level, the better the strategic partnership is between organization and its workers, organization and partnering organization, organization and the temporary staff.

The promotion and motivation of trust could be made by the organization in different ways: showing credibility by ensuring open and accessible communications, showing respect by involving employees into the decision-making process, providing fairness by ensuring that employees have access to fair pay, creating a great workplace by rewarding the efforts and establishing the sense of family and team among employees (Lyman, 2003), to name just a few.

The objects of employee trust could be various such as organizational level trust, trust in groups the employee works in (Lee, 2008), trust in coworkers (Cho & Park, 2011). In the current research we are taking trust in supervisors as a unit of study, because the direct leaders (i.e. supervisor) “appear to be a particularly important referent of trust” (Dirks & Ferrin, 2002, p. 611). Also, the supervisor represents a formal link between organization and employee, being directly responsible for transmitting organizational objectives to the employees of the organization. Usually, trust in organization is based on the level of trust in the supervisors using the

¹⁰⁰ There are different types of trust within the organizational context such as trust in the supervisors/managers or trust to the organization as a whole. Here in the current research we have adapted the scales of trust in the supervisors and from now on talking about the concept we mean trust in the supervisors.

judgement that employee makes regarding his/her interactions and inferences with his/her supervisor (Tan & Tan, 2000).

Trust in supervisors is the trust level that employee possesses towards his/her supervisors (Colquitt et al., 2007; Dirks & Ferrin, 2002; Xiong, Lin, Li, & Wang, 2016). Trust in the supervisor can be defined as “the willingness of a subordinate to be vulnerable to the actions of his or her supervisor whose behavior and actions he or she cannot control” (Tan & Tan, 2000, p. 243). It also reflects how openly the employee can communicate with his/her supervisors on work-related issues not having fear of negative responses. Over time, continuous positive reactions on those interactions build trust (Fulk, Brief, & Barr, 1985).

In the social exchange context, trust is considered as a form of exchange linking two parties (Paillé et al., 2017). This is also true for interpersonal trust (trust between employees and managers) and organizational trust¹⁰¹ (trust between employee and the organization) (Whitener, Brodt, Korsgaard, & Werner, 1998). Trust in organization¹⁰² and trust in supervisors are related constructs, despite the distinctions each of the concept includes (Tan & Tan, 2000).

The link between trust in supervisors and employee affective commitment may follow the logic of various theories. According to social identity theory, the individual belongs to a certain group, which leads to the emotional and valuable attachment to that group and its members. The in-group attachment increase will also increase the feeling of distinction with out-groups. The supervisor, in this case, belongs to the out-group, making the interaction more status- or role-based. However, “a pattern of positive interactions with an out-group member may lead to ‘breaking through’ the inter-group barrier and, thereby, to an increase in trust” (Willemyns, Gallois, & Callan, 2003, p. 119), meaning that good relationships with the supervisor increase levels of trust in supervisors felt by employees.

Following the logic of social identity theory, SET states that, the employee may show affective commitment to the organization as a reciprocal behavior, demonstrating the willingness to engage in actions that “contribute meaningfully to the organization” (Meyer & Allen, 1997, p. 24) in order to achieve organizational goals. As was said, trusting in supervisor may mean that the supervisor i). does not respond negatively with repercussions when discussing work-related issues, and ii). shows fair treatment and appraisal of the efforts to the employee continuously. As an object of exchange responding to several cases of such behavior from the supervisor, an employee may show affective commitment (Michaelis, Stegmaier, & Sonntag, 2009).

Prior research also supports a strong positive relationship between trust in supervisors and employee affective commitment. In a study conducted among British

¹⁰¹ Employee is willing to be committed to the organization in exchange of trust organization provides to him/her. In this case, trust provides the security that the organization will consider the efforts of the employees on its behalf and encourages such efforts paired with time to help the organization to reach its goals. If the trust is present, employees may consider being committed to such organization involving themselves into the long-term relationship with the organization they trust, considering it worth time and effort spent on reaching organizational goals (Eisenberger & Stinglhamber, 2011).

¹⁰² Trust in organization can be defined as employee’s perceptive evaluation of the extent to which organization may be trusted (Gambetta, 1988; Tan & Tan, 2000).

blue-collar employees (390 respondents for study 1 and 260 respondents for study 2) working in the manufacturing sector, Cook & Wall (1980) found that trust positively affects organizational commitment. In this study, items selected to measure organizational commitment are in line with the employee affective commitment scale. Performing an extensive study among 210 employees and their supervisors in medical healthcare system of the United States, Yang & Mossholder (2010) found that affective trust in supervisor explained variance in affective organizational commitment. Dirks & Ferrin (2002) analyzed findings of the studies on trust in leadership during the past four decades and found that trust in leadership has a strong positive effect on commitment¹⁰³.

In the light of these considerations, the following hypothesis is proposed:

Hypotheses 4: Trust in supervisors positively affects employee affective commitment.

Employee affective commitment and voluntary pro-environmental behavior at work

As we have noted earlier, social exchange theory describes the employee commitment emergence: organization provides certain work conditions and rewards, and the employee in exchange is willing to contribute to the organizational goals showing commitment to the social values shared by the organization (Oxley & Wittkower, 2011).

Playing the role of a bond between employee and the organization, employee affective commitment at high levels creates loyalty to the organization the employee works in, makes the worker identify him-/herself with the organizational goals and develops the unwillingness to leave (Lambert & Hogan, 2009). Drawing a line between commitment and loyalty, it can be seen that affective commitment is a kind of volunteer loyalty to the organization in the sense that the feeling is not bounded by fear or negative obligation. In this case, affective commitment drives employees to express concern and care for the organization they are committed to, trying to help when there is a problem or engaging in actions to improve organizational well-being.

In addition, prior research noted that committed employees may go beyond their regular working responsibilities in order to contribute to the organizational well-being (Jaworski & Kohli, 1993). This could be one explanation of the engagement in extra-role behaviors by employees with the feeling of affective commitment.

Employee engagement in extra-role behavior may also be explained by motivation. Motivation is defined as an energizing force that has implications, which initiate work-related behavior regulating its form, direction, intensity and duration. All motivated behavior is also goal-oriented (Meyer, Becker, & Vandenberghe, 2004). It is believed that employees feeling affective commitment to the organization are motivated to a higher level of performance and are also engaged more frequently in

¹⁰³ The commitment resulting from trust in leadership was not identified as affective, continuance or normative.

meaningful behavior that contributes to the organizational well-being (Brown, 2003), including extra-role behaviors.

Company goals may be various, including environmental protection and social stability (Law, Hills, & Hau, 2017). Organizational policies and practices towards greening may reflect those goals demanding the employees to be engaged in green behaviors related to their work tasks. The employee that develops affective commitment may want to perform more than that, if, above all, the pro-environmental behavior related to the job role is not improvable. In this case, employees may engage in voluntary PEB at work as an extra-role behavior.

Hence, if some environmental behavior (for example, environmental protection and decrease of pollution) are among the organizational goals, but they are not included in the formal job description, affective commitment could encourage employees to perform behavior contributing to pollution reduction and environmental protection, for example.

In a study conducted in subsidiaries of multinational corporations located in Mainland China among 162 respondents, Liu (2009) found that affective commitment positively influenced OCB. Studies on OCBE provide similar results. As a result of a research performed among 547 employees in two public organizations, Temminck et al. (2015) concluded that employee affective commitment has a significant positive influence on OCBE. Also, in a study conducted in Poland among four- and five-star hotel employees, Zientara & Zamojska (2018) confirmed that employee affective commitment has a positive influence on engagement in OCBE. Meyer et al. (2002) in a meta-analytical study between 1985 and 2000 of different commitment components found that that committed employees are willing to engage in extra-role activities such as OCB, being interested in doing far more than their in-role responsibilities and required duties.

Considering all the arguments described above, the following hypothesis is proposed:

Hypothesis 5: Employee affective commitment positively affects employees' voluntary pro-environmental behavior at work.

The mediating effect of employee affective commitment on the relationship between job satisfaction, perceived organizational support, family-supportive organizational perceptions, trust in supervisors and employees' voluntary pro-environmental behavior at work

As we previously stated, social exchanges explain the relationship between job satisfaction and employee affective commitment. SET (Blau, 1964) points out that the interdependent exchange that happens between employee and the organization involves objects of exchange. The organization provides good working conditions ensuring job satisfaction for the employee. In turn, the employee becomes committed to the organization in response to job satisfaction.

Likewise, an employee feeling taken care of, working in a mutually understanding and respecting environment where a relaxing atmosphere of work and life is provided (Zhuang & Liu, 2010), feels the need to do something in exchange for the organizational well-being (Blau, 1964). In this case, the organizational object of exchange is POS and FSOP, which is paid back with the employee affective commitment.

In the case of trust, according to social exchange theory, the feeling of trust may arise because of the good relationship with the supervisors (Willemyns et al., 2003). SET explains two ways of how trust is involved in social exchange relationship. According to SET, i). social exchange is a social contract between two involved parties where one party performs good actions directed to the second party. Since there is no way to ensure the return of the favor, the party that performed it first has to trust in another party that the favor will be returned in the future. Usually the favors given for the first time tend to be small since little risk of receiving nothing in exchange exists in this case (Blau, 1964). Also, social exchanges may be performed several times. Hence, ii). successful social exchanges happened between two parties may lead to trust from one party to another. In this case, trust in supervisors may arise from various cases of fair treatment received by the employee from the supervisors, resulting in affective commitment because of the positive rule of reciprocity. The norm of reciprocity is based on a notion that any act of kindness or any action that has a positive effect on the individual should be returned (Gouldner, 1960). The returned favor usually has the same amplitude that the obtained advantage has.

Committed employees are more productive, more adaptable and more responsible (Demir, 2011). Once affective commitment is felt, the employee behavior changes. Workers with strong sense of affective commitment may devote more time and energy to their direct job duties (Temminck et al., 2015). Employees feeling taken care of, working in a mutually understanding, trusting and respecting environment (Zhuang & Liu, 2010), can feel the need to do something else in exchange for the organizational well-being. Since sometimes the improvements in in-role behaviors are not possible, employees can engage in tasks they are not required to perform or extra-role behavior (Kabasakal et al., 2011) such as behavior directed to contribute to organizational greening.

Following this logic, employee affective commitment can mediate the relationship between job satisfaction, POS, FSOP and trust in supervisors and voluntary PEB at work since affective commitment produced as a result of the social exchange can lead to the engagement in extra-role behaviors that benefit the organization (Paillé et al., 2019). As Paillé & Boiral (2013, p. 125) underline “when employees feel supported by their organization, they become more committed and satisfied and are willing to engage in OCB” (Paillé & Boiral, 2013, p. 125).

Prior literature has shown evidence to support the ideas mentioned above. For instance, in a study conducted among 162 employees of 37 subsidiaries of multinational corporations in China, Liu (2009) underlined the mediating role of employee affective commitment between POS and extra-role behavior such as OCB.

Other studies found that affective commitment mediates the relationship between employees' perceived organizational support and OCBE (Paillé & Boiral, 2013). To the best of our knowledge, the studies connecting job satisfaction with voluntary PEB at work through the mediation of employee affective commitment were not performed. However, Sesen & Basim (2012) in a study among 275 Turkish schools' teachers have found a positive impact of job satisfaction on OCB-I and OCB-O of the teachers through mediation of organizational commitment. Previous research in organizational context on the link between trust in supervisors and voluntary pro-environmental behavior through mediating role of employee affective commitment was not identified.

Based on the discussed ideas, the following hypotheses are proposed:

Hypothesis 6: Employee affective commitment positively mediates the relationship between job satisfaction (H6a), perceived organizational support (H6b), family supportive organizational perceptions (H6c), trust in supervisors (H6d) and employees' voluntary pro-environmental behavior at work.

Perceived environmental organizational support and voluntary PEB at work. The moderating role of perceived environmental organizational support on the relationship between employee affective commitment and employees' voluntary pro-environmental behavior at work

The perceived environmental organizational support (POES) is defined as “the specific beliefs held by employees concerning how much the organization values their contributions toward sustainability” (Lamm et al., 2015, p. 209).

Since POS refers to the beliefs of employees that the organization they work for provides opportunities, allows autonomy and values the contribution of the employees, POES can be understood as POS towards the environment that values the sustainable and environmental behavior of employees. If the employee possesses the beliefs that the organization values his/her contribution to sustainable actions, the organization is seen by employees as environmentally supportive and conducive to workers' sustainable behavior (Lamm et al., 2015).

According to prior studies, POES also describes the situation where top management is involved in the pro-environmental activities and values such behavioral traits coming from employees (Masri & Jaaron, 2017; Robertson & Barling, 2013). As a result, POES is not only the employee perception that the organization is involved in pro-environmental activities and values such behaviors, but also the actual involvement of the company in such activities.

As POES is a type of POS, SET (Blau, 1964) and OST (Eisenberger et al., 1997; Eisenberger et al., 1986) are useful to understand the relationship between POES and voluntary PEB at work. POES can be seen as an object of exchange for extra-role behaviors where organization provides valuable treatment for employees' efforts towards the improvements of organizational sustainability (Lamm et al., 2015). Also, sometimes employees may feel limited to identifying whether green behavior is

beneficial or harmful for the organization. In this case, perceived organizational support shown by the organization towards the environment would serve as a guidance, motivating employees to behave in pro-environmental way.

Behind the theory there is an argument stating that certain characteristics of social environment motivate individuals to behave in a certain way (Lamm et al., 2015), meaning that perceived organizational support towards the environment may motivate employees to engage in voluntary PEB as “managers can promote a context, climate, and conditions favorable to the emergence of voluntary and discretionary environmental initiatives not directly or explicitly rewarded by the organization” (Boiral, 2009, p. 230). Organizational climate helps employees to identify organizational goals and aligns employee motivation with those goals (Zientara & Zamojska, 2018).

Also, from the social identity perspective, if the group the person belongs to is positively valued by other groups, self-enhancement and self-evaluation are positive, which contributes to the behavioral intentions that help the group to “prosper” (Fielding et al., 2008). Hence, if the employee works in an organization that is positively valued by his/her significant others (friends, family, colleagues) or other social groups, the employee can be self-identified with the organization. In turn, organizational norms would encourage certain types of employee behavior: green POS would promote green behaviors clearly, which would affect employee behavior.

The proposed hypothesis is in line with prior literature evidence. Lamm et al. (2015) have found positive relationship between POES and OCBE, claiming that the organization supporting the employee sustainable behaviors will most likely motivate employees to behave in pro-environmental way. The study was conducted among working adults via snowball sampling that consisted of 733 completed surveys. Temminck et al. (2015) detected a positive influence of POS towards the environment and employee engagement in OCBE by testing the data collected from 547 employees of two public organizations. Saifulina & Carballo-Penela (2017) in the study among 59 public sector employees also found a significant relation of POES to voluntary workplace environmentally friendly behavior. Paillé & Meija-Morelos (2019) in a study of 500 students from major Mexican university applying temporal separation to data collection, also reported that POES has a positive influence in employee engagement in OCBE.

Considering all the arguments described above, the following hypothesis is proposed:

Hypothesis 8a: Perceived organizational environmental support positively affects employees' voluntary pro-environmental behavior at work.

The motivational factor coming from POES may not only directly affect employees' voluntary PEB at work, but also moderate the relationship between employee affective commitment and employees' voluntary PEB at work.

Several important points have to be remembered in order to understand this logic.

First, from the social identity perspective, if the organization is positively valued by significant others of the employee, the employee will probably be self-identified with the organization he/she works in, which contributes to the behavioral intentions that help the group to “prosper” (Fielding et al., 2008). Self-identification also influences sense of belongingness.

Second, organizations promoting green organizational culture, spreading information about environmental issues, establishing green training are perceived by employees as supportive towards the environment (Boiral, 2009). Also, such organizations indicate that the environment is valuable for them.

If the employee possesses environmental values him-/herself, the employee would feel the value congruence with the organization, which provokes perceived organizational environmental support (Zientara & Zamojska, 2018). This situation may provoke the sense of harmony and unity in employees with organizations sharing the same values. Such experience may motivate employees to show stronger affective commitment, which would lead to the performance of extra-role behaviors to help the company to achieve organizational goals (Lamm et al., 2013). Therefore, the effect of affective commitment on employees’ voluntary PEB at work will be enhanced when employees perceive organizational environmental support.

Although not many studies have analyzed this moderating effect, Zientara & Zamojska (2018), who made a research in Polish hotel industry among its 239 employees, found that green organizational climate significantly moderates the relationship between employee affective commitment and OCBE in a way that the relationship is stronger when green organizational climate is present.

Therefore, on the basis of these considerations, the following hypothesis is formulated:

Hypothesis 8b: Perceived environmental organizational support moderates the relationship between employee affective commitment and employees’ voluntary pro-environmental behavior at work. Specifically, the positive relationship between employee affective commitment and pro-environmental employee behavior at the workplace is greater, the stronger is perceived environmental organizational support.

4.3.1.2. Colleagues pro-environmental behavior and employees’ voluntary pro-environmental behavior at work

Conceptions of human behavior rely heavily on environmental factors, explaining the behavior by environmental deterministic viewpoints. Human behavior is mostly shaped by the actions and events happening around the person acting together with the personal emotions biological processes (Bandura, 2008).

According to the social cognitive theory, there are several factors that may influence the learning process. Those are cognitive, vicarious, self-reflective, self-regulatory processes (Bandura, 1989) and observational learning (Bandura, 2008). Cognitive processes are referred to the brain activity that influences human behavior such as the perception of self-efficacy and affect (Bandura, 1989). However, learning through cognitive processes requires a lot of time and efforts, since this process is based on a trial-and-error method (Bandura, 2008).

The easier method to learn any behavior is learning by observing. Human beings learn by observing (Bandura, 2008) and then imitating those behaviors (Bandura, 1977). These processes are called learning by imitating, or observational learning. They consume less time and effort permitting efficient and effective obtainment of knowledge and competencies in a shorter amount of time because of the availability of the large number of behavioral models (Bandura, 1986, 2008).

However, observational learning does not mean copying learned behaviors. It means extracting the connotation of behavioral nuances and understanding the matter of the subject for the successful interpretation and further application of that connotation (Bandura, 2008). In other words, the observed behavior is not copied but the nature of the behavior is understood and then similar behavior with the same nature is performed.

Employees spend most of their time at work. On average, employees are at work more or less 8 hours per day in the majority of countries. During these hours they interact with colleagues, which involves observing their behavioral traits.

Hence, colleagues and managers could transmit organizational values and climate of the working environment (Purcell & Kinnie, 2007), being a role model in pro-environmental behavioral traits instead of just communicating those values (Ones & Dilchert, 2012a; Schein, 1995).

If the colleagues perform voluntary pro-environmental behavior at work in their daily activities, the employee is motivated by observational learning to perform the same types of behavior in order to achieve a common goal, in this case, minimize the environmental impact of the company and protect the environment.

According to our knowledge, there were no prior studies that confirmed the proposed relationship between colleagues' voluntary pro-environmental behavior at work and employees' voluntary pro-environmental behavior at work. However, there is prior research on leader-subordinate green behavior relationship. Even if the influence of the leader may follow different patterns that just learning by observing, some observational learning attributes are also present. Kim, Kim, Han, Jackson, & Ployhart (2017) found a positive relationship between the supervisor's green behavior and green behavior of subordinates within a group. The study was conducted for a sample of 325 office workers unified into 80 work groups in three South Korean companies, working together more than 1 year. Robertson & Barling (2013) in a study conducted among 139 subordinate-leader dyads from Canada and United States have

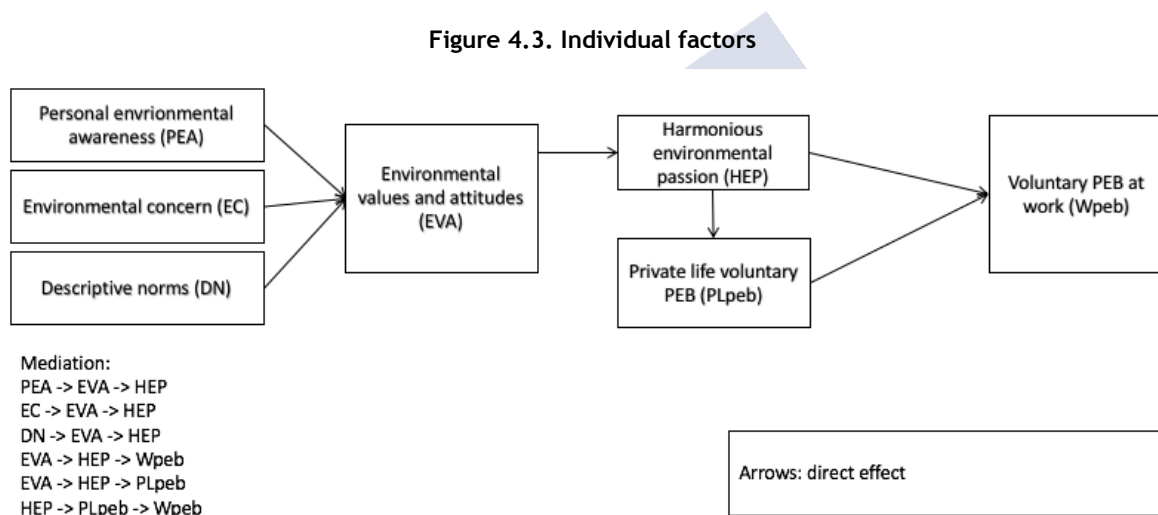
also found positive effect of leaders' workplace pro-environmental behavior on employees' workplace pro-environmental behavior.

Considering all the arguments described above, the following hypothesis is stated:

Hypothesis 7: Colleagues pro-environmental behavior positively affects employees' voluntary pro-environmental behavior at work.

4.3.2. Hypothesis development: individual factors affecting employees' voluntary pro-environmental behavior at work

The selected variables as individual determinants can be seen on Figure 4.3. In the current section we explain the relationships between them.



Source: author's own elaboration.

4.3.2.1. Environmental values and attitudes, harmonious environmental passion and employees' voluntary PEB at work

The definition of values comes from the Latin word *valere* meaning to be strong and worthy (Dietz, Fitzgerald, & Shwom, 2005). Values are individual ideas of what is right and what is wrong containing a judgmental element (Robbins & Judge, 2010), being a meaningful guiding principles throughout person's life when we make choices, including moral principles and opinions about some issues (Bernard, Maio, & Olson, 2003; Dietz et al., 2005). Values tend to be enduring and resistant to change (Meglino & Ravlin, 1998; Twenge, Campbell, Hoffman, & Lance, 2010).

There is pretty exhaustive research done on the topic of values. The concept is studied within the framework of sociology, social psychology, political science and, for instance, environmentalism (Dietz et al., 2005). Values are defined as entities

playing a role of a motivator: people are usually motivated by activities or outcomes that they value (Maslow, 1943; Twenge et al., 2010). Values are also considered to be “needs, personality types, motivations, goals, utilities, attitudes, interests, and nonexistent mental entities” (Meglino & Ravlin, 1998, p. 351). Different authors propose various classifications of values, some of which we describe below.

Some authors (Curran, Hill, Appleton, Vallerand, & Martyn Standage, 2015; Vallerand, 2015) classify values as intrinsic and extrinsic. Intrinsic ones are those that we see as satisfactory to pursue such as self-affiliation, community feeling, self-acceptance (Curran et al., 2015; Vallerand, 2015), opportunity to be creative, learning possibilities (Twenge et al., 2010). Extrinsic values are those that are important for social rewards such as financial success, popularity (Curran et al., 2015; Vallerand, 2015), income, status, promotional opportunities (Twenge et al., 2010).

Other authors (Rokeach, 1973) describe two types of values. One of them is the value placed on an object or outcome, which is a subconscious process of valuing objects and outcomes (Meglino & Ravlin, 1998). The second type is described as a personal description. Those are divided into terminal and instrumental values. Terminal values are those that characterize self-sufficient states of personal existence that individuals strive to achieve such as wisdom or a comfortable life. Instrumental values, in turn, are behavioral models such as being honest or helpful when needed, instead of states of personal existence. Instrumental values may assist the progress of achievement of terminal values (Meglino & Ravlin, 1998; Rokeach, 1973).

Prior literature on organizational behavior tends to focus more on the research and promotion of instrumental values rather than terminal values (Meglino & Ravlin, 1998), being focused on the “oughtness”, which is a specific indication that values provide: “how he or she “should” or “ought” to behave” (Meglino & Ravlin, 1998, p. 354). Oughtness provides a description of internalized interpretations of behavior that an individual experiences, which is partially influenced by the culture the individual lives in (Meglino & Ravlin, 1998). Affecting the behavior, values function as a justification of the past behavior of the individual and as a motivator that encourages the individuals to behave in regard to their values (Meglino & Ravlin, 1998; Postman, Bruner, & McGinnies, 1948; Rokeach, 1973).

One of the focuses of prior research on values are work values, defined as employees’ desires of the outcomes they believe they can achieve through work (Frieze, Olson, Murrell, & Selvan, 2006; Twenge et al., 2010), shaping employee perceptions and attitudes at work (Twenge et al., 2010). Work values can also be extrinsic and intrinsic (examples are mentioned above). Other work values may be autonomy in decision-making process, job security, job stability, altruistic rewards (e.g., helping others, helping society), leisure, vacation time, freedom from supervision (Herzog, 1982; Johnson, 2002; Miller, Woehr, & Hudspeth, 2002; Twenge et al., 2010).

Environmental values are the ones related to nature (Dutcher et al., 2007) and environmental protection¹⁰⁴ (Fryxell & Lo, 2003): “values aligned with sustainability and conservation often drive the questions that ecologists address” (Reiners, Reiners, & Lockwood, 2013, p. 1227). The environmental values are usually related to the self-reported behavior (e.g., I recycle), behavioral intentions (e.g., I am willing to participate in a pro-environmental protest), or other measures concerning environmental issues (Dietz et al., 2005).

Environmental values could consist of corporate stance towards environmental concerns, operational awareness (e.g., in case of consumers it might be a concern towards company supply chain) and environmental competence (Hänninen & Karjaluoto, 2017).

Values and attitudes¹⁰⁵ are closely linked (Hänninen & Karjaluoto, 2017; Rokeach, 1973). Attitudes are behavioral intentions of the person towards a certain object or process helping to understand behavioral traits (Robbins & Judge, 2010) acting as standards to follow¹⁰⁶ (Bernard et al., 2003) and representing the desire of something someone wants or attains (LePine et al., 2014). Attitudes are “functional constructs [...] that structure one’s social universe and, in so doing, ease decision-making” (Fazio et al., 1992, p. 388), helping individuals to structure and stabilize the world they live in (McKenna, 2006) and understand personal advantages and disadvantages of any given situation (Lülfes & Hahn, 2013).

Being a positive or negative evaluation of something particular (Dietz et al., 2005), the environmental attitudes are how we evaluate specific behaviors or issues regarding the environment.

Environmental values and attitudes (EVA) are relevant for the study of antecedents of voluntary PEB. EVA influence our thinking about the preferences and priorities we give to certain behavior towards the environment (Dietz et al., 2005). The theory of planned behavior states that certain behaviors of a person are directed by the intentions to perform a behavior influenced by the attitude towards a behavior (Ajzen, 1991; Bamberg & Möser, 2007). In turn, the norm-activation model (Bamberg & Möser, 2007) explains the engagement in PEB with the role of values in activation of a strong moral obligation to participate in certain behaviors.

Considering the relevance of EVA in the study of PEB, the investigation and analysis of antecedents of values and attitudes is a very important topic, since values do not act alone but with other elements (Dietz et al., 2005). The researchers have studied different determinants of EVA including the connectivity with nature, postmaterialism¹⁰⁷, cultural bias, and universal values (Dutcher et al., 2007). The

¹⁰⁴ Prior research has confirmed that the presence of environmental values have positively influenced behavioral traits towards the environment (Fryxell & Lo, 2003).

¹⁰⁵ Since both values and attitudes result in mental attachment to the object of values and attitudes, we include both of them in our research as one term.

¹⁰⁶ This definition is similar to the definition of instrumental values, which states that instrumental values are behavioral models.

¹⁰⁷ Postmaterialism in this case is referred to the notion that there are non-material things that matter, not only the money. The concept was very popular after WWII (Dutcher, Finley, Luloff, & Johnson, 2007).

environmental concern, which is researched using the bases of self-interest, humanistic altruism and biospheric altruism, is another determinant of EVA. Here the first two terms (i.e. self-interest and humanistic altruism) are referred to through the degree of anthropocentrism, whereas biospheric altruism encompasses intrinsic values (Dietz et al., 2005). Environmental concern could be defined as the reflection of “both a sense that something is important and a belief that it may be at risk” (Dietz et al., 2005, p. 351). Other determinants of EVA could be environmental knowledge¹⁰⁸ (Mobley, Vagias, & DeWard, 2010) and the enhancement of such by reading environmental literature.

This study considers three antecedents of EVA: personal environmental awareness, environmental concern and descriptive norms. As we have underlined before, EVA push an individual to make choices. Sometimes those choices should be made on some issues individuals do not know much about (Dietz et al., 2005). The personal environmental awareness and environmental concern represent knowledge on those environmental issues, individuals have to make choices on, helping them to act in a pro-environmental way. Also, descriptive norms describe the societal values of a group, which individual is identified with. Explaining the mechanism in a simple way, self-identification internalizes group values and makes them personal values.

Personal environmental awareness, environmental concern and environmental values and attitudes

Concern over environmental issues emerged in 1960s (Straughan & Roberts, 1999) focusing on the issues of pollution and energy conservation. Environmental concern can be defined as “the extent to which individuals concerned with the environment” (Stern, Dietz, & Kalof, 1993, p. 323) or the concern, beliefs¹⁰⁹, general orientation and environmental awareness of the citizens of the quality of the surrounding environment (Dunlap, 2012; Kim & Choi, 2005; Kollmuss & Agyeman, 2002; Rezapouraghdam et al., 2018). Some authors (Schultz, Shriver, Tabanico, & Khazian, 2004) define environmental concern as the degree of affect or worry related to environmental problems.

The concern may be based on self-interest, i.e. the individual would be willing to protect the environment if the benefits obtained exceed the costs of doing so. Other type of environmental concern can be based on pro-social altruistic concerns, meaning that the individual would be willing to act in pro-environmental way for the sake of other human beings, even if the obtained benefits for oneself are less than the costs. This kind of environmental concern goes in line with other altruistic views such as concern over minority rights, for example. The third type of environmental concern is usually based on biospheric concerns, i.e. the worries are directed towards Nature and other species. In this case, the habitat destruction is more important than the effect of

¹⁰⁸ Environmental knowledge leads to being aware of consequences and needs of certain actions.

¹⁰⁹ If the individual believes in the importance of the environment and seriousness of environmental issues, that individual is more conscious and concerned of his/her behavior about the environment (Zientara, Zamojska, Maciejewski, & Nikodemka-Wołowik, 2019).

environmental problems on people or individual him-/herself (Schultz et al., 2004; Stern et al., 1993).

Environmental concern could be studied from two different perspectives.

Individual level environmental concern refers to the worry about abuse of the environment by the individuals and awareness of personal actions and results of such on the environment (items to measure such concern may include, for example, “I would be willing to reduce my consumption to help protect the environment”). Few studies have focused on the awareness of personal actions’ consequences on the environment (Zientara, Zamojska, Maciejewski, & Nikodemska-Wołowik, 2019).

Social level environmental concern includes the perception of need for changes induced by society, government or legislation to protect the environment (items may include “Major political change is necessary to protect the natural environment”, for instance) (Fransson & Gärling, 1999; Kilbourne & Pickett, 2008).

We believe that individual level environmental concern includes environmental awareness of own actions, willingness to change the habit and sacrifice some previously done activities in order to protect the environment and reduce the caused damage by the individual, while social level environmental concern deals with the consciousness towards the environment and damage caused by human activity in general, as can be seen by the exemplary items to measure such concern.

The environmental knowledge is very important in formation of environmental awareness and concern because environmental knowledge and education raises awareness of environmental problems (Longhofer & Schofer, 2010) and results in understanding environmental impacts (Rayner & Morgan, 2018), resulting in values, (e.g., environmental values). Environmental knowledge can be learnt, for instance, through social media or special trainings “resulting in greater understanding of environmental impacts” (Rayner & Morgan, 2018, p. 6).

Emerging from eco-literacy (Kirmani & Khan, 2016), environmental concern activates a strong sense of personal responsibility¹¹⁰ that provokes the formation of certain values and attitudes (Abdulghaffar, 2017; Afsar et al., 2016).

In the current research we have decided to study environmental concern on both individual and social levels. The individual level environmental concern is called “personal environmental awareness” (PEA), while the social level environmental concern is called “environmental concern” (EC).

Both personal environmental awareness and environmental concern relationship with the development of environmental values and attitudes could be explained by various theories, including norm-activation model.

¹¹⁰ With the presence of environmental concern, the person feels the moral obligation to prevent the damage towards the environment (Stern, Dietz, & Kalof, 1993).

According to NAM, personal norms are always present in one's personality, even if not always active. In order to activate the personal norm and transform it into a behavior or value later on, there should be a trigger to pull (Lülfes & Hahn, 2013).

The trigger may result from feeling of responsibility. It is believed that responsibility causes action only if individual i). is aware that the harmful consequences of not taking action are present (Stern et al., 1985); ii). is concerned that the action is needed to solve certain problems (Lülfes & Hahn, 2013); and iii). understands that he/she is able/not able to perform the behavior towards helping the environment (perceived behavioral control) (Lülfes & Hahn, 2013). If the issues are understood, the environmentalism can become a moral norm – i.e. converted to the values and attitudes towards the object of concern.

Thus, the process of activation of the environmental values and attitudes towards any given environmental problem depends on i). personal environmental awareness of individual actions that influence environmental problems, as well as ii). environmental concern towards environmental problems and the role of the humanity in developing those problems.

The importance of the role of environmental knowledge (i.e. personal environmental awareness and environmental concern) in formation of individual attitudes has been underlined by some authors (Mweemba & Wu, 2010) stating that education can change attitudes and beliefs. This research was performed studying Zambia college students. Li, Liu, & Liu (2013) in their study¹¹¹ on environmental awareness and green perceived value conducted with 349 respondents, also underlines that the positive relationship between two concepts is statistically significant. Some studies conducted in India among graduate and post-graduate students enrolled in educational institutions, support the idea that environmental concern has a direct positive impact on formation of positive attitudes towards green products (Kirmani & Khan, 2016). Tang, Wang, & Lu (2014) in a study conducted among 408 Chinese students confirmed that environmental concern positively affects consumer attitude towards green purchase.

Following the idea, the next hypotheses are proposed:

Hypothesis 9: Personal environmental awareness positively affects the development of individuals' environmental values and attitudes.

Hypothesis 10: Environmental concern positively affects the development of individuals' environmental values and attitudes.

Descriptive norms and environmental values and attitudes

Social norms are “rules and standards that are understood by members of a group, and that guide and/or constrain social behavior without the force of laws”

¹¹¹ The study states that environmental awareness is defined as environmental literacy, which is in line with environmental knowledge embracing our two variables together. They also include green perceived value that could be defined “positive attitude towards specific green product” (Li, Liu, & Liu, 2013, p. 770), since they are studying consumer behavior of green purchases.

(Cialdini & Trost, 1998, p. 152). In other words, social norms are the rules of any certain society or group. Social norms are divided into injunctive (ought) and descriptive (is) norms (Cialdini & Trost, 1998). Social influence and social norms are very defining in terms of social conduct and rules of behavior shared by a certain group or society indicating what is acceptable and what is rejected (Luís & Palma-Oliveira, 2016) shaping the group context and establishing certain standards of behavior (McDonald & Crandall, 2015). Violating those standards may lead to warning and, depending on the level of disobedience, to loss of social status in the group or even exclusion (McDonald & Crandall, 2015).

Injunctive norms provide information on how people should behave in any given situation being based on escaping from undesired sanctions when behavior is not performed. Injunctive norms are motivated by obligation completion, authority acceptance and punishment avoidance (Cialdini & Trost, 1998; Melnyk, Herpen, Fischer, & Trijp, 2013).

Being affected and influenced by other's behaviors (Silva, 2017), descriptive norms refer to people's perceptions of what most others do (Cialdini, 2007). These perceptions can motivate behavior by conveying important social information about effective and adaptable behavior (Cialdini, 2007; Goldstein, Cialdini, & Griskevicius, 2008) and providing social proof for effective behavior (Melnik et al., 2013).

When individuals follow the lead of others, they speed up the decision-making process so that time and cognitive effort are saved, while appropriate behavior is performed (Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007).

Descriptive norms¹¹² indicate and describe what people should do, establishing recommended behaviors (McDonald & Crandall, 2015) and promoting certain behavior (Melnik et al., 2013). When they are internalized, descriptive norms become personal norms (Bratt, 1999; de Araujo, 2014).

For instance, in the environmental context, descriptive norms provide information that taking care of the environment is important in the given context of the given society or community, encouraging individuals not to deviate from the social norm (Schultz et al., 2007) in order not to be excluded.

According to the social identity theory, if the individual is identified with his/her social group, self-concept and self-image is developed (Ashforth & Mael, 1989; Hogg, 2006). The values formed through self-concept are target values (de Araujo, 2014), which are related to the target image people seek. In order to be significant, the desired image must reflect a person's values towards certain behavior that is important to the group the person belongs to. Target values can be environmental values that should be developed in order to be able to give the impression of a pro-environmental person¹¹³ (de Araujo, 2014).

¹¹² In comparison, injunctive norms are rules and regulations that ought to be performed to avoid sanctions (Melnik, Herpen, Fischer, & Trijp, 2013).

¹¹³ If an individual belongs to the Group A that is environmentally friendly, he/she would try not to be excluded from this particular group A, so the person starts to build an impression about him-/herself. Firstly, our individual has to decide what

The theory of planned behavior offers a similar explanation of the possible relationship between descriptive norms and environmental attitudes of the individual. This view is also bounded by the notion that individuals act upon their self-interest (Ajzen, 1991). According to TPB, subjective norm, which is defined as the perception of the social pressure about certain behavior, is important (Tonglet et al., 2004). The avoidance of social exclusion is, in this case, the motivational factor for making social acceptance a self-interest (Bamberg & Möser, 2007).

According to TPB, the attitude is formed towards certain behavior (i.e. green behaviors) on the basis of subjective norms of acceptance or rejection of the individual by important groups (e.g., society or community individual lives in) or significant others (Ajzen, 1991). The opinion of those groups and important people about certain behavior is important in this case. Some authors (Gifford & Sussman, 2012) claim that environmental attitudes increase with the increase of environmental knowledge.

If the certain group possesses the descriptive norm of behavior towards environment, the individual, who wants to be a part of that group or forms a part of that group not wanting to be socially excluded, develops certain environmental values and attitudes in the context of the need for group belonging.

Following previous ideas, the next hypothesis is proposed:

Hypothesis 11: Descriptive norms positively affect the formation of environmental values and attitudes of individuals.

Environmental values and attitudes and harmonious environmental passion

As we have discussed in the previous hypothesis, values are formed as a part of self-identity (de Araujo, 2014), in order to be able to give a certain impression.

However, the identity formation is a long process that includes internalization of some elements and values that are important to us such as our romantic partner, groups we belong to, activities we engage in on a daily basis, activities we care about deeply. Because of that, we form passion¹¹⁴ towards internalized activities inside us that form a part of our identity (Vallerand, 2015).

The concept of passion is defined as a strong feeling towards someone or something, since passion could be expressed as an activity, object, person or concept¹¹⁵ (Vallerand, 2015).

impression to make and how to make it. In our particular case the impression is "I am an environmentally friendly person". The person must believe that he/she can be environmentally friendly.

¹¹⁴ The study of passion is very important for the PEB area since passion results in engagement in activities of passion. However, in order to select a certain activity of passion, there should be particular characteristics of the latter such as interest (the activity of passion should inherent a certain interesting property for the person), meaning (the activity of passion should be meaningful) and coherence with personal identity (the activity of passion should be in harmony with the characteristics of personal identity) (Vallerand, 2015). The last-mentioned characteristic is of particular interest to the current research, since personal identity includes values and attitudes gathered during one's life.

¹¹⁵ It means that we could be passionate about swimming (activity), our new swimming suit (object), our loved one (person) or the equal rights among genders in swimming competition (idea), which could lead us to behave in one or another way in order to achieve something we are passionate about (Vallerand, 2008).

Passion embraces whole life aspects being in each and every part of our existence (Vallerand, 2015). The phenomenon has been studied from the scientific point of view by many researchers throughout human history (e.g., Duckworth, Peterson, Matthews, & Kelly, 2007; James, 1997; Vallerand et al., 2003), even if at the very beginning, passion was studied as a concept of emotion (Frijda, 2007b; Hall, 2002). The motivational nature of passion to behave in a certain way was underlined (Vallerand, 2015).

Despite the fact that passion is usually associated with romantic feelings (Vallerand, 2015), the concept could be applied to other aspects and human life activities such as sports (Mageau et al., 2009), music (Bonneville-Roussy, Lavigne, & Vallerand, 2011) or politics (Hall, 2002).

The formation of passion is a long and complicated process where values one possesses play a very important role. Internalized values that are significant for the individual (Kasser & Ahuvia, 2002; Kasser & Ryan, 1993) construct a specific type of passion, which depends on whether the internalization process is controlled or autonomous. During the controlled internalization process the formed passion is obsessive and during the autonomous internalization process the passion that is formed tends to be harmonious (Vallerand, 2015).

In addition, value type is also important in the formation of the passion type. Extrinsic values develop obsessive passion since they result from ego-invested self. In turn, since intrinsic values are not contradictory to our self-identity, the passion that is developed from them is harmonious (Vallerand, 2015). The described ideas lead us to the duality of the concept of passion, meaning that passion could bring out good and bad sides of people making people feel that life is worth it (Vallerand, 2008): obsessive and harmonious passion.

Obsessive passion is a negative emotion that comes from controlled integration of the activity and results in the obsessions leaving no space for other activities that are not an object of passion (Vallerand, 2015). Obsessive passion could lead to the maladaptive negative experiences, uncertainties and the feeling of insecurity (Mageau et al., 2009; Vallerand et al., 2003).

Harmonious passion is a positive emotion that results in positive outcomes of task performance: experienced positive emotions and energy, no rigid ties to the object of passion are the results of harmonious passion type (Mageau et al., 2009; Vallerand, 2015).

Because of the negative consequences of engagement in obsessive passion, this study focuses on the harmonious one. Moreover, the person possessing harmonious passion “should be likely to display high levels of persistence in the activity” (Vallerand, 2015, p. 64) making it possible to consider failures as learned experience rather than threats.

If a person possessing harmonious passion produces a new self-element, which is the target of passion, this self-element will be in harmony with other elements of self-identity one has and will not contradict the overall perception of self

(Vallerand, 2015). According to Tedeschi (2013), if the person is trying to give an impression of environmental friendliness and develops environmental values on an autonomous basis, i.e. voluntarily, understanding that “it is a good thing”, the passion that results from such an autonomous value formation tends to be harmonious.

Values held by individuals are very important when it comes to the development of certain passions (Vallerand, 2015). The environmental values that are internalized autonomously, go in line with individual self-identity (Kasser & Ahuvia, 2002; Vallerand, 2015). The main value, in this case, could be ‘environment matters’ (O’Neill, Holland, & Light, 2008). If a person possesses values and attitudes towards the environment, the person most probably would develop harmonious passion towards the object of passion, which is the environment: “harmonious passion results from an autonomous internalization of the activity into the person’s identity” (Vallerand, 2015, p. 62). Thus, environmental values and attitudes can be positively related to the formation of harmonious environmental passion.

Prior literature provides extensive research on the topic of harmonious passion. The mentioned antecedents of harmonious passion are personality traits (Balon, Lecoq, & Rimé, 2013; Wang & Yang, 2008), identity integration, informational identity style, normative identity¹¹⁶ style (Bouizegarene et al., 2018), strengths use (Dubreuil, Forest, & Courcy, 2014), impulsivity (Orosz, Zsila, Vallerand, & Böhle, 2018) and autonomous personality (Vallerand et al., 2006). There is a lack of studies on antecedents of harmonious environmental passion, since prior literature is more interested in the results of this concept. We have found one study (Afsar et al., 2016) that has found that the workplace spirituality is an antecedent of harmonious environmental passion.

Therefore, on the basis of these considerations, the next hypothesis is proposed:

Hypothesis 12: Environmental values and attitudes positively affect the development of harmonious environmental passion of individuals.

The mediating effect of environmental values and attitudes on the relationship between personal environmental awareness, environmental concern, descriptive norms and harmonious environmental passion

Environmental knowledge is one of the important aspects when understanding environmental issues (Rayner & Morgan, 2018). Personal environmental awareness to do certain actions and environmental concern on environmental issues represents understanding. This knowledge, as we have stated earlier, results in values, i.e. environmental values (Rayner & Morgan, 2018).

¹¹⁶ Normative identity style is closest to the concept of descriptive norms since the normative identity style is guided by the social norms and internalization of beliefs of significant others (Bouizegarene et al., 2018). In this study, normative identity style, however, was positively associated with obsessive passion.

Descriptive norms when internalized become personal norms (Bratt, 1999; de Araujo, 2014). In addition, TPB theory states that attitudes are formed in accordance with the subjective norm that describes the behavioral traits accepted in the given society (Ajzen, 1991).

Impression management is very important when it comes to impression construction because at this point descriptive norms contribute to value formation through the development of self-concept and self-image (de Araujo, 2014; Kowalski & Leary, 1990; Leary & Kowalski, 1990), as we have pointed out before.

It was also stated that autonomously internalized values result in harmonious environmental passion (Vallerand, 2015). If someone possessing harmonious environmental passion produces a new self-element, which is some element related to the environment, the newly developed element will be in harmony with all the other self-identity elements (Vallerand, 2015).

Autonomous internalization of environmental values that results in harmonious environmental passion occurs by the understanding the importance of environmental problems and consequences of our behavior towards the environment. Such internalization is also in agreement with individual self-identity (Kasser & Ahuvia, 2002; Vallerand, 2015). The mentioned understanding may come from environmental knowledge represented by personal environmental awareness and environmental concern (Kirmani & Khan, 2016; Madsen & Ulhøi, 2001). Accordingly, personal environmental awareness and environmental concern can positively affect harmonious environmental passion through environmental values and attitudes.

Considering that injunctive norms are an obligation imposed by society and descriptive norms are description of desired behavior (Cialdini & Trost, 1998), in case of descriptive norms the internalization process is autonomous.

When descriptive norms are internalized, they become personal norms (Bratt, 1999; de Araujo, 2014). Personal norms are one's expectations of oneself (Schwartz, 1973, 1977). Since social norms were internalized into personal norms, self-image is developed. The values and attitudes are formed in accordance with social norms through self-image. Since descriptive norms were internalized autonomously, values and attitudes could also be formed by the autonomous internalization process resulting in harmonious environmental passion. Some authors support the idea, that people are more willing to develop harmonious passion for the activities that are of social importance (Robertson & Barling, 2013). Thus, descriptive norms could affect the development of harmonious environmental passion through environmental values and attitudes.

As far as we know, prior studies on determinants of harmonious environmental passion do not include personal environmental awareness and environmental concern and descriptive norms. The research on harmonious passion determinants include autonomous personality and high valuation of passion activity (sport in this research) (Vallerand et al., 2006), autonomy support and own activity

valuation (Mageau et al., 2009), emotional intelligence (Houliort & Rinfret, 2010), leadership style and organizational culture (Houliort, Vallerand, & Koestner, 2012).

However, some studies have considered the possibility of values and attitudes as mediators of different relationships. Tang, Wang, & Lu (2014) in a study conducted among 408 Chinese students confirmed that attitudes towards green purchase mediate environmental concern and green purchase intention. Armenta, Knight, Carlo, & Jacobson (2011) have confirmed the mediating effect of familism values in the relationship between ethnic group attachment and some helping behaviors whereas mainstream American values have a mediating effect on the relationship between ethnic group attachment and prosocial behavior. Some other authors (Aman, Harun, & Hussein, 2012) found a partial mediation of attitudes in the relationship between environmental concern and green purchase intention. However, according to our knowledge, prior research has not considered the mediating role of environmental values and attitudes in the proposed relationships.

Taking all these considerations into account, the following hypotheses are proposed:

Hypothesis 13: Environmental values and attitudes positively mediate the relationship between personal environmental awareness (H13a), environmental concern (H13b), descriptive norms (H13c) and harmonious environmental passion.

Harmonious environmental passion and voluntary pro-environmental behavior

Passion the individual possesses is present in each and every part of our life (Vallerand, 2015), which means that if an individual is passionate about a certain action or object, the passion for that particular object would be present in any aspects of a person's life, including private life and workplace.

Harmonious passion, as well as harmonious environmental passion, is a positive emotion that results in a positive outcome: experience of energy and positive emotions towards the object or activity of passion (Mageau et al., 2009; Robertson & Barling, 2013; Vallerand, 2015).

According to BABT, positive emotions broaden our recognition of the surrounding world, helping to modify our values making them more pro-environmental and respectful to the world in the long-run. Positive emotions also emphasize the importance of intrinsic goals over extrinsic ones (Carter, 2009; Junot et al., 2017).

The sense of contentment, joy and happiness are positive emotions that may lead to building enduring personal resources "ranging from physical and intellectual resources to social and psychological resources" (Fredrickson, 2001, p. 219).

According to BABT, the positive emotions resulting from harmonious environmental passion promote and broaden learning of the environmental situation and the ways to resolve environmental problems through building creativity and

changes in behavior towards pro-environmentalism (Carter, 2009). In addition, positive emotions felt repeatedly may result in a positive affect (Fredrickson, 2001), which encourages individuals to engage in activities that are anticipated to result in those positive emotions and affect experienced before. Hence, passion being a positive emotion itself results in further positive emotions, when engaging in the activities that are objects of passion, by the principle of upward spiral.

Also, harmonious environmental passion may provoke anticipated positive emotions, if the individual perceives the engagement in pro-environmental behavior, because PEB is the object of harmonious environmental passion. Hence, anticipated positive emotions will probably motivate the individual to be engaged in this type of behavior more in the future to experience positive emotions. If the behavior is performed repeatedly, positive emotions would result in affect because of accomplishing pro-environmental activities, which is even stronger positive emotion. Since the positive emotion upward spiral continues, the individual will most likely continue his/her engagement in pro-environmental behavior.

Thus, the person feeling harmonious environmental passion would be performing activities to support the object of passion (i.e. environment) and experiencing positive emotions (Robertson & Barling, 2013). This may lead to the state where an individual is feeling energized, inspired and motivated to engage in pro-environmental behavior because of positive emotions and energy of self-fulfillment, which would happen regardless of the setting: at home and at work. Hence, this logic is valid for voluntary pro-environmental behaviors at work and in private life (Gousse-Lessard et al., 2013; Vallerand, 2008).

Previous research results also support the proposed idea. In a study of private life domain among 110 participants who were workers and members of voluntary groups engaged in pro-environmental activities, Gousse-Lessard et al. (2013) concluded that harmonious environmental passion would lead to the development of mainstream environmental activism.

Studies conducted in the workplace also show that harmonious environmental passion positively influences voluntary pro-environmental behavior at work. A study conducted in USA and Canada among 139 leader-follower dyads has found evidence that harmonious environmental passion resulted in employee pro-environmental behavior (Robertson & Barling, 2013). Other authors (Saifulina & Carballo-Penela, 2017) found similar results on the link harmonious environmental passion-voluntary workplace environmentally friendly behavior in a study conducted among 59 public organization employees in Spain. Other research performed in Thailand among 637 employees working in six companies from two industries (software and banking) also found a positive influence of harmonious environmental passion on employees' pro-environmental behavior (Afsar et al., 2016).

Therefore, the following hypotheses are stated:

Hypothesis 14: Harmonious environmental passion positively affects employees' voluntary pro-environmental behavior at work.

Hypothesis 15: Harmonious environmental passion positively affects private life voluntary pro-environmental behavior.

The mediating effect of harmonious environmental passion on the relationship between environmental values and attitudes and private life and employees' voluntary pro-environmental behavior

As we have stated earlier, environmental values may be formed because of certain descriptive norms accepted in the society resulting in values formed in the self-identity.

Some researchers directly connect values to pro-environmental behavior noting that “values found to have a positive influence on environmental behavior are self-transcendent/openness to change and universalism/biospheric” (Karp, 1996, p. 111). While others state that environmental values being important for the individual may orient them directly towards certain actions (Clark, Kotchen, & Moore, 2003), that may include pro-environmental behavior.

However, psychology research provides evidence that values and attitudes are predictors of certain behavioral intentions, but not the behavior itself (Ajzen & Driver, 1991; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). This view is supported by several researchers who note that environmental attitudes influence behavioral intentions towards the environment (Lülfes & Hahn, 2013). From this perspective, environmental values and attitudes are believed to be the alignment and adjustment of certain behavioral patterns. The same view is supported by TPB (Ajzen, 1991; Ajzen & Fishbein, 1980), which states that the stronger the attitude towards the behavior, the more the intention to perform it.

Behavioral intentions are not behavior itself: values and attitudes provide the willingness to participate in a certain behavior, but they do not cause the performance of that behavior itself (Clark et al., 2003). In this case, intention to perform the behavior is considered a trigger in order to activate the values and attitudes towards the environment, which result in pro-environmental behavior.

Harmonious environmental passion can play the role of that trigger for several reasons.

Firstly, harmonious passion being a positive emotion itself, also results in further positive emotions when engaging in the activity of passion. Pro-environmental values and attitudes result in harmonious environmental passion bringing positive emotions towards involvement in pro-environmental activities. In this case, HEP would lead to the voluntary PEB performance, because of positive emotions the engagement in it brings to the individual. Thus, HEP should also play a mediating role in the relationship of environmental passion and voluntary pro-environmental behavior¹¹⁷.

¹¹⁷ Here voluntary PEB embraces both workplace and private life behavior.

Secondly, passion is a strong motivational force. It represents a strong inclination towards the activity that is self-defining (Gousse-Lessard et al., 2013). Object of passion, i.e. environment, is internalized in the identity of the individuals who possess harmonious environmental passion (Gousse-Lessard et al., 2013; Vallerand et al., 2003) through values, leading to the situation where “a person having a passion for the environmental cause would define himself or herself as an environmentalist or an eco-citizen and not only as someone who recycles from time to time” (Gousse-Lessard et al., 2013, p. 19). Self-identity with the object of passion is significant, because prior literature has underlined that self-identity is an important point in prediction of the behavior itself, not just behavioral intention (Gousse-Lessard et al., 2013; Whitmarsh & O’Neill, 2010). In this case, the behavior the person would be engaged in is voluntary PEB (both at work and at home): a person having environmental values and attitudes may and also may not engage in voluntary PEB. However, the person who developed HEP because of EVA would definitely be engaging in voluntary PEB because of the strong motivation HEP represents.

Thirdly, harmonious passion represents free will in the process of engagement in behavior. Individuals have various objects of interest throughout their lives. However, when the object of interest is highly valued, it passes to the internalization process to self-identity of the individual (Aron, Aron, & Smollan, 1992; Deci, Eghrari, Patrick, & Leone, 1994; Gousse-Lessard et al., 2013), where passion towards that internalized object of interest is developed. As was noted earlier, if the internalization process is autonomous, harmonious passion is elaborated. People with harmonious passion tend to freely engage in activity of passion whenever they want (Gousse-Lessard et al., 2013). This means that a person with harmonious environmental passion may freely choose to engage in environmental passion activities regardless of the setting, i.e. at home or at work.

Finally, harmonious environmental passion results in environments that support intrinsic needs (Bridekirk, Turcotte, & Oddson, 2016) derived from intrinsic values. Intrinsic needs are the needs aimed at fulfilling community well-being, self-affiliation and altruism such as pro-environmental ones. Because of the need in engagement in altruistic types of behavior (i.e. voluntary behavior), an individual is more likely be involved in voluntary pro-environmental behavior (at work and at home), if he/she develops harmonious environmental passion on the basis of environmental values and attitudes.

In the light of these considerations, the following hypotheses are proposed:

Hypothesis 16a: Harmonious environmental passion positively mediates the relationship between environmental values and attitudes and employees’ voluntary pro-environmental behavior at work.

Hypothesis 16b: Harmonious environmental passion positively mediates the relationship between environmental values and attitudes and private life voluntary pro-environmental behavior.

Private life voluntary pro-environmental behavior and employees' voluntary pro-environmental behavior at work

The relationship between private life voluntary pro-environmental behavior and voluntary pro-environmental behavior at work can be explained by the TPB (Ajzen, 1991). This theory explains the relationship between the factors influencing behavioral choices (Ajzen, 1991), especially psychological ones (Adams et al., 2017).

According to this theory, if the person in private life does not possess the need to be engaged in pro-environmental type of behavior, in other words, does not have a positive attitude towards pro-environmental behavior, such behavioral patterns at work will be performed only if controlled (forced or obliged pro-environmental behavior by other agents, e.g., colleagues, supervisors). On the contrary, if the person performs certain environmental behavior at home, the individual is most likely to engage in the same behavioral pool at work.

Cognitive dissonance framework is also useful to understand the relationship between private life voluntary pro-environmental behavior and voluntary PEB at work (Festinger, 1957). Dissonance “is a negative drive state which occurs whenever an individual simultaneously holds two cognitions (ideas, beliefs, opinions) which are psychologically inconsistent” (Aronson, 1969, p. 2). The solution of such a situation could be to change one or both cognitions to make them fit together or be consonant (Aronson, 1969), since people feel comfortable in a state of psychological consistency (Greenwald & Ronis, 1978).

According to Festinger (1957), the individual always tries to minimize the dissonance existing between activities performed in private life and at work. Stated differently, contradicting activities such as “I am pro-environmental at home, but at work I do not even recycle paper” would provoke discrepancy and discomfort and would be removed immediately by the individual. As a result, in order to remove the dissonance, the person who possesses PEB at home, would probably do the same at work.

In addition, prior literature argues that the overall atmosphere of the community where the person lives could also influence individual PEB at work (Proshansky, Fabian, & Kaminoff, 1983). The link was found between PEB habits at home and PEB at work, being primarily reasoned by an individual's values, attitudes and beliefs towards the environment and environmental issues (Tudor et al., 2007). Value congruence can be an explanation for that. Engaging in voluntary PEB at home can act as a value representation of the individual. In this case, doing the same at work is a value congruence between individual values and organizational ones, which is normally searched for by employees (Lamm et al., 2015).

Moreover, according to prior literature, private life behavior can influence work behavior. As such, “it is an obvious assumption that private experiences also influence people's environmental behavior in working life” (Muster & Schrader, 2011, p. 141). Employees as humans possess multiple roles derived from different domains (Elloy & Smith, 2003), and the role conflict is tried to be avoided (Muster & Schrader,

2011). The pro-environmentally behaving at home individuals may apply same behavioral patterns at work and even feel more satisfied with their jobs, if such behavior is encouraged by the organization they work for (Lamm et al., 2015).

Many private life PEBs can be repeated at work such as using resources (e.g., water and electricity) responsibly. Unfortunately, even if the importance of private life voluntary PEB for voluntary PEB at work is crucial, prior literature is lacking research on the topic (Boiral, 2009).

Researchers have found few evidence that private life voluntary pro-environmental behavior produces the same patterns at work. A study performed among the workers from an office organization in Taiwan showed how private life pro-environmental behavior with regard to recycling positively influences similar behavior at work (Marans & Lee, 1993). In a study among 566 employees of Cornwall National Health Service Tudor et al. (2007) found that employees recycling at home were more likely to do the same at work.

On the other hand, a research conducted among 220 households for recycling behaviors has found that recycling at home is more common than at work (McDonald, 2011). This idea is also supported by some studies that confirm the same results (Whitmarsh et al., 2018). However, this result is explained by absence of adequate facilities for recycling at work (McDonald, 2011).

Following the logic of the discussion made above, the following hypothesis is proposed:

Hypotheses 17: Private life voluntary pro-environmental behavior positively affects employees' pro-environmental behavior at work.

The mediating effect of private life voluntary pro-environmental behavior on the relationship between harmonious environmental passion and employees' pro-environmental behavior at work

Private life voluntary pro-environmental behavior can also mediate the relationship between harmonious environmental passion and employees' voluntary pro-environmental behavior at work.

First, value congruence can be helpful to understand this relationship. Value congruence results from the activities the individual performs at home that are also highly valued at work (Lamm et al., 2015). According to TPB, the presence of values and attitudes towards the environment is necessary in this case (Ajzen, 1991). If, for an individual performing PEB at home is of high importance and at work such behavior is also valued, it represents congruency between individual values and organizational ones (Lamm et al., 2015). However, as was seen before, existence of environmental values and attitudes in itself does not predict the behavior, but only a behavioral intention. For that reason, harmonious environmental passion is necessary as a trigger to perform voluntary pro-environmental behavior at home in this case.

Thus, value congruence here may refer to congruence in passion activities. Harmonious environmental passion that individuals possess result in the engagement in activity that is the object of passion (Robertson & Barling, 2013). We have stated that those activities could be both private life and workplace behavior. However, according to the life-to-work interventions point of view, employees “bring in and develop their environmental values, ideas and private experiences to the workplace” (Muster & Schrader, 2011, p. 150). Even if workplace behavior can in a way influence private life behavior (work-to-life interventions) (Muster & Schrader, 2011), life habits are often formed precisely in private life (Paillé et al., 2017).

Second, the significance of cognitive dissonance was underlined in understanding the relationship between private life voluntary pro-environmental behavior and voluntary pro-environmental behavior at work. Since harmonious environmental passion motivates individuals to perform the activities to support the object of passion (Robertson & Barling, 2013), harmonious environmental passion can promote voluntary pro-environmental behavior at home. In order to avoid the experience of cognitive dissonance, an individual may also engage in voluntary pro-environmental behavior at work.

All the arguments presented above lead to the conclusion that even if HEP directly influences voluntary pro-environmental behavior at work of the individuals, if those individuals are engaged in out-of-work pro-environmental behavior, harmonious environmental passion may influence voluntary pro-environmental behavior at work through the mediation of private life voluntary pro-environmental behavior.

In the light of these considerations, the following hypothesis is proposed:

Hypotheses 18: Private life voluntary pro-environmental behavior positively mediates the relationship between harmonious environmental passion and employees' pro-environmental behavior at work.



5. RESEARCH METHODOLOGY AND RESULTS

5.1. Methodology

In the current section, the following points of research methodology of the PhD thesis will be presented. Firstly, we describe the data collection and measurement of constructs. Secondly, the description of the collected data would be shown. Next, the research model with its sub-models are tested with Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM). Finally, the results of each mentioned analyses are described. The programs used to perform the mentioned analyses were IBM SPSS Statistics 20.0 and IBM SPSS Amos 21.0.

5.1.1. Sample and data collection procedure

The data gathering of the current study was conducted among the banking sector employees (Table 5.1). Under the framework of interest of the research, top management was not considered since we are interested in the specific behavioral patterns of employees performed voluntarily without control. The employees were conducted one by one regardless of the bank they work in. The total amount of banks, from which the employees were participating in the current study is twelve. The data was gathered through questionnaire that was available online (in google forms) and in printed version. The respondents were contacted via email, phone and through personal contacts of the researcher. The data used in the current analysis was collected in two countries – Kazakhstan and Ecuador – during the period of July 2017 – January 2019 resulting in total in 331 valid questionnaires from both countries (107 from 5 banks of Kazakhstan and 224 from 7 banks of Ecuador). Therefore, data collection procedure was performed as follows.

Table 5.1. Sample description

Population	Banking sector employees
Location ¹¹⁸	Ecuador and Kazakhstan
Data collection procedure	Questionnaire data gathering via e-mailing, phone, and personal contacts
Respondent	Banking sector employees from various levels of responsibilities
Sampling procedure	Convenience sample (non-probabilistic)
Field work	July 2017-January 2019
Sample size	331 valid questionnaires

¹¹⁸ All the respondents of each sample are native citizens of the respective countries (Ecuador and Kazakhstan).

The countries selected for this research are Kazakhstan and Ecuador because prior literature mainly focuses on developed countries, so it is very interesting to apply proposed model in emerging countries where the topic of this research was not tested before.

In order to examine the sample of the current research for nonresponse bias, the following guidelines of Armstrong & Overton (1977) and Weiss & Heide (1993) were used, that analyzed the sample for significant differences between early respondents (first 75% returned questionnaires) and late respondents (late 25%), thus analyzing the possibility of nonresponse bias. For that purpose, we performed t-test in these subsamples on several employee respondent characteristics (such as age $p=0.227$, gender $p=0.232$, education level $p=0.411$ and years worked in the organization $p=0.160$), and the results showed no significant differences (at the $p<0.05$ level), so nonresponse bias was not a problem.

5.1.2. Measurement of constructs: questionnaire development and scales

For data gathering the well-structured questionnaire was developed through the extensive analysis of a literature review with pieces of advice of various experts in the field of sustainable development and organizational behavior. The survey initially was developed in English and then translated to Spanish and Russian with the supervision of native speakers of both languages. The pilot survey was conducted among university professors in Kazakhstan and Spain, to avoid any minor mistakes and misunderstandings in Russian and Spanish translation. Throughout the pilot survey the explication of some survey terms was introduced to the questionnaire.

All the items for the questionnaire are pre-validated and therefore were taken from the previous studies in the field, except item Wpeb_1 (“When talking to my customers about investment decisions, I try to take firms that care about environmental and social issues (e.g., prevention of environmental damage, care about quality of life of their employees and community) and raise awareness of clients on that issue”) that was developed under the guidance of an expert and PhD professor in our field of research. The rest of the variables are measured using previously validated scales.

The variables observed in the survey consists of 2 or more items constructed on the basis of 7-point Likert scale where “1” means “completely disagree” and “7” means “completely agree”. In the reversed items that were part of the current study survey the Likert scale is also reversed. The aforementioned is true for all variables of the current study except questions regarding demographics and one dichotomous question of the variable called “descriptive norms”. The variables containing two items (such as job satisfaction) are in general extensively studied in several previous research investigations and the items selected are well functioning in previous research. Our research interest is, however, in the area of their connection with other variables under the current study. Thereof, we have decided to use just two items to measure them.

The items corresponding to their variables with the literature sources for each item are shown in the Table 5.2 and Table 5.3.

Table 5.2. Measurement of constructs (antecedents, mediators and moderators): dimensions, sources of scales and items

DETERMINANT	SOURCE	ITEM
Job satisfaction	Lee & Bruvold, 2003	JS_1 Generally speaking, I am satisfied with my job
		JS_2 I would recommend a job like mine to a good friend
Perceived organizational support	Eisenberger, Huntington, Hutchinson, & Sowa, 1986	POS_1 My organization really cares about my well-being
		POS_2 My organization cares about my opinions
		POS_3 My organization is willing to help me if I need a special favor
		POS_4 My organization would forgive an honest mistake on my part
Family supportive organizational perceptions	Allen, 2001	FSOP_1 Work should be the primary priority in a person's life R
		FSOP_2 Long hours inside the office are the way to achieve advancement R
		FSOP_3 It is best to keep family matters separate from work R
		FSOP_4 It is prohibited at work to talk about personal non-work matters R
		FSOP_5 Employees who are highly committed to their personal lives cannot be highly committed to their work R
		FSOP_6 Employees are given ample opportunity to perform both their job and their personal responsibilities well
		FSOP_7 Offering employees flexibility in completing their work is viewed as a strategic way of doing business
Trust in supervisors	Podsakoff, MacKenzie, Moorman, & Fetter, 1990	TiS_1 I feel quite confident that my leader will always try to treat me fairly
		TiS_2 My manager would never try to gain an advantage by deceiving workers
		TiS_3 I would support my leader in almost any emergency
Employee affective commitment	Rhoades, Eisenberger, & Armeli, 2001	EAC_1 I would be happy to work at my organization until I retire
		EAC_2 Working at my organization has a great deal of personal meaning to me
		EAC_3 I really feel that problems faced by my organization are also my problems
		EAC_4 I am proud to tell others I work at my organization
Colleagues' voluntary PEB at work	Robertson & Barling, 2013	Cpeb_1 My colleagues take part in environmentally friendly programs (e.g., bike/walk to work day, bring your own local lunch day)
		Cpeb_2 My colleagues make suggestions about environmentally friendly practices to managers and/or environmental committees, in an effort to increase my organization's environmental performance
	Blok, Wesselink, Studynka, & Kemp, 2015	Cpeb_3 My colleagues try to use electronic materials rather than print them out
	Boiral & Paillé, 2012	Cpeb_4 My colleagues take initiative to contribute to pro-environmental behavior of our company (trainings, conferences, debates, meetings, etc.)
	Frese et al., 1997	Cpeb_5 My colleagues always look for the opportunities to reduce environmental impact in their work
Perceived organizational environmental support	Cantor, Morrow, & Montabon, 2012	POES_1 My company is willing to assist employees in solving environmental problems
	Branzei, Vertinsky, Takahashi, & Zhang, 2001	POES_3 Many top level managers in my organization are personally and actively involved in developing environmental protection policies and monitoring their implementation

DETERMINANT	SOURCE	ITEM
		POES_4 My organization has detailed written policies concerned with protecting the environment
	Susskind, Michele, & Borchgrevink, 2003	POES_5 My company encourages me to engage in pro-environmental behavior patterns
	Branzei et al., 2001	POES_6 I have the feeling that with my suggestion on pro-environmental behavior patterns I can make a difference in the company
Personal environmental awareness	Stern et al., 1985	PEA_1 I wouldn't take a job with a company I knew produced hazardous consequences for the environment
	Stern et al., 1999	PEA_2 I feel a personal obligation to do whatever I can to prevent climate change
		PEA_3 I would be willing to pay much higher taxes in order to protect the environment
		PEA_4 I would be willing to pay much higher prices in order to protect the environment
Environmental concern	Stern, Dietz, & Black, 1985	EC_1 Humanity is severely abusing the environment
		EC_2 The balance of nature is delicate and easily upset
		EC_3 The earth is like a spaceship with only limited room and resources
		EC_4 Humanity is supposed to rule over the rest of nature R
		EC_5 Humans need not adapt to their natural environment because they can remake it to suit their needs R
Descriptive norms	Robertson & Barling, 2013	DN_1 Do you know any family members and/or friends who work for an environmental organization (e.g., renewable energy organization, environmental consultants, the ministry of the environment, non-governmental environmental organization, etc.)?
		DN_2 Do your family members and/or friends endorse environmentally friendly programs?
		DN_3 Do your co-workers practice environmentally friendly behaviors that you know about or have seen?
		DN_4 Do your co-workers endorse environmentally friendly programs?
Environmental values and attitudes	Mostafa, 2007	EVA_1 It is important to me whether a product I buy has no negative effects on the environment
	Straughan & Roberts, 1999	EVA_2 Since one person cannot have any effect upon pollution and natural resource problems, it doesn't make any difference what I do R
	Chaubey, Patra, & Joshi, 2011	EVA_3 If all of us, individually make a contribution to environmental protection, it will have a significant effect
		EVA_4 Environmental issues are very important to me
Harmonious environmental passion	Robertson & Barling, 2013	HEP_1 I am passionate about the environment
		HEP_2 I enjoy engaging in environmentally friendly behaviors
		HEP_3 I enthusiastically discuss environmental issues with others
		HEP_4 I passionately encourage others to be more environmentally responsible
		HEP_5 I am a volunteered member of an environmental group
Private life voluntary PEB	Robertson & Barling, 2013	PLpeb_1 I recycle wastes (e.g., cans, bottles, paper, plastic)
	Whitmarsh & O'Neill, 2010	PLpeb_2 I save water by taking shorter showers
	Mweemba & Wu, 2010	PLpeb_3 I use electricity and hot water efficiently
	Whitmarsh & O'Neill, 2010	PLpeb_4 In my selection of transportation, I try to use trains rather than planes

DETERMINANT	SOURCE	ITEM
	Mweemba & Wu, 2010	PLpeb_5 I try not to use plastic carry bags and go shopping with my own bag
	Whitmarsh & O'Neill, 2010	PLpeb_6 I prefer products with eco-labeled packages
	Bogner & Wilhelm, 1996	PLpeb_7 I make sure that during the winter the heating system in my room is not switched on too high
		PLpeb_8 Whenever possible, I take a shower instead of a bath in order to conserve water
	Roberts, 1996	PLpeb_9 I drive whenever it suits me R
	Tarrant & Cordell, 1997	PLpeb_10 I stopped buying a product because it caused environmental problems
	Roberts & Bacon, 1997	PLpeb_11 I buy products made from recycled products (e.g., toiled paper, paper towels, napkins made from recycled paper)
		PLpeb_12 I have convinced members of my family or friends not to buy some products which are harmful to the environment

Table 5.3. Measurement of construct (dependent variable: voluntary PEB at work): dimensions, sources of scales, items and classification of the items

DETERMINANT	SOURCE	ITEM	(Ones & Dilchert, 2012a; Ones et al., 2018)	(Boiral & Paillé, 2012; Boiral, 2009)
Voluntary PEB at work	Own elaboration	Wpeb_1 When talking to my customers about investment decisions, I try to take firms that care about environmental and social issues (e.g., prevention of environmental damage, care about quality of life of their employees and community) and raise awareness of clients on that issue	Taking initiatives	Eco-initiative
	Whitmarsh & O'Neill, 2010	Wpeb_2 When going to work I use environmentally friendly transport options (e.g., taking public transportation, rather than using a car)	Transforming, Avoiding harm	Eco-initiative
	Robertson & Barling, 2013	Wpeb_3 I give suggestions to managers for improving pro-environmental behavior at my work	Taking initiatives	Eco-initiative
	Blok et al., 2015	Wpeb_4 I try to use electronic materials rather than print them out	Conserving	Eco-initiative
	Boiral & Paillé, 2012	Wpeb_5 I take initiative to contribute to pro-environmental behavior of my company (trainings, conferences, debates, meetings, etc.)	Taking initiatives	Eco-civic engagement
		Wpeb_6 I encourage my colleagues to express their ideas and opinions on environmental issues	Influencing others	Eco-helping
		Wpeb_7 I give my time to help my colleagues take the environment into account at work	Influencing others	Eco-helping
		Wpeb_8 I speak to my colleagues to help them better understand the environmental problems	Influencing others	Eco-helping
		Wpeb_9 I volunteer for projects or events that address environmental issues in my organization	Taking initiatives	Eco-civic engagement
		Wpeb_10 I suggest new practices that could improve the environmental performance of my organization	Transforming, Taking initiative	Eco-civic engagement

Naming each dimension, the sources of scales were as follows:

- Job satisfaction was measured using two items taken from Lee & Bruvold (2003) that was based on the work of Quinn & Staines (1977).
- Perceived organizational support was based on the approach of Eisenberger et al. (1986) and includes four items taken from the named research.
- Family supportive organizational perceptions include seven items that are taken from the work of Allen (2001).
- Trust in supervisors dimension includes three items that were adapted from the research of Podsakoff et al. (1990). Two first items were designed by Cook & Wall (1980) used later by Podsakoff et al. (1990). The third item was taken from Podsakoff and colleagues (1990) article.
- Employee affective commitment construct consists of four items taken from the investigation of (Rhoades et al., 2001).
- Colleagues' voluntary PEB at work includes five items from four different previous investigations making slight changes – we have converted “I” into “my colleagues” for the purposes of current research. The first and second items are taken from Robertson & Barling (2013); third item is adapted from research of Blok et al. (2015), making some changes based on the ideas provided by Bissing-Olson et al. (2013) and Lamm et al. (2013); fourth item is adapted from Boiral & Paillé (2012) article, and fifth item is adapted from Frese et al. (1997) work.
- Perceived organizational environmental support variable is measured by five items. The first item is taken from Cantor et al. (2012). Second and third items are taken from Branzei et al. (2001). Fourth item is adapted from Susskind et al. (2003). Fifth item is adapted from Branzei et al. (2001) article.
- The variable personal environmental awareness is measured by four items. The first item is taken from Stern et al. (1985), second, third and fourth items are taken from Stern et al. (1999).
- Environmental concern is measured by five items taken from the research of Stern et al. (1985).
- Descriptive norms dimension is measured by four “yes” or “no” answering items (dichotomous questions) that are taken from Robertson & Barling (2013).
- Environmental values and attitudes dimension is measured by four items taken from previous studies. The first item is adapted from the study of Mostafa (2007). Second item is taken from the work of Straughan & Roberts (1999). Third and fourth items are taken from the research of Chaubey et al. (2011).
- The harmonious environmental passion dimension is measured using five items all taken from the research of Robertson & Barling (2013).

- Private life voluntary PEB includes twelve items. The item number one is adapted from Robertson & Barling (2013). Items number two, four and six are adapted from the investigation of Whitmarsh & O'Neill (2010). Items three and five are adapted from the work of Mweemba & Wu (2010). Items seven and eight are taken from Bogner & Wilhelm (1996). Item nine is taken from Roberts (1996) with little changes to avoid guided response. Item number ten is adapted from Tarrant & Cordell (1997) work. Items eleven and twelve are adapted from the study of Roberts & Bacon (1997).
- The employees' voluntary PEB at work is measured using ten items taken from previous research and by one item resulting from own elaboration work. The first item is developed by the guidance of prof. Daniel Geiger from the Organizational Department of the University of Hamburg. Second item is adapted from Whitmarsh & O'Neill (2010). Third item is adapted from Robertson & Barling (2013). Fourth item is adapted from Blok et al. (2015) inspired on the ideas of Bissing-Olson et al. (2013) and Lamm et al. (2013). Last six items (fifth, sixth, seventh, eighth, ninth and tenth items) are adapted from the investigation of Boiral & Paillé (2012).

In addition to the variables described in the current section, we have controlled for country in relation to our analysis in both sub-models (as described in Section 5.2.2): Kazakhstan (coded 0) and Ecuador (coded 1).

5.2. Analysis and results

5.2.1. Descriptive analysis

5.2.1.1. Sample description: respondent profile

In the current section, the sample description would be presented including the brief description of the employee respondent. The univariate analysis was performed to describe respondent profile variables. Six demographic filter questions were constructed in order to identify the respondent profile. Those are age, gender, education level, job role (the respondents had free space to write down their job role), how much time the person is working in the bank (in years) and the nationality (that was bounded by two options – Kazakhstan and Ecuador).

Table 5.4. Frequencies of sample demographics

Variable	Frequency	Percentage
Age		
18-25	92	27.8
26-35	146	44.1
36-50	87	26.3
50+	6	1.8
Gender		
Feminine	213	64.4
Masculine	118	35.6
Education		
Primary studies	0	0
Secondary studies	15	4.5
University studies	287	86.7
Other	28	8.5
Nationality		
Kazakhstan	107	32.3
Ecuador	224	67.7

Table 5.5. Tenure descriptives (years)

N	Min	Max	Mean	St.D.
323 ¹¹⁹	0.10	25	5.10	4.14

As it could be seen from Table 5.4 and Table 5.5, the most common respondent is a woman (64.4%) of the age between the range of 26-35 years (44.1%) with the university studies completed (86.7%) from Ecuador (67.7%). The working period in the bank is maximum of 25 years and minimum of one month (0.10 years).

Finally, we controlled for country based on a self-reported survey question that is recoded as binary, where 32.3% of respondents are from Kazakhstan (coded 0) versus 67.7% of respondents are from Ecuador (coded 1).

5.2.1.2. Theoretical constructs: univariate analysis

In the current section, the description of the theoretical constructs via univariate analysis is performed. Each dimension is presented in the following tables.

¹¹⁹ Eight employees did not include the antiquity in the answer.

Table 5.6. Univariate Analysis: Job satisfaction

Item	N	Min	Max	Mean	St.D.
JS_1 Generally speaking, I am satisfied with my job	331	1	7	5,89	1.213
JS_2 I would recommend a job like mine to a good friend	331	1	7	5,69	1.213

Talking about the variable job satisfaction construct, Table 5.6 shows that the group includes two items (JS_1 and JS_2). As shown in the Table 5.6, all the means are above average value (4.00). The greatest mean value is taken by the item JS_1 “Generally speaking, I am satisfied with my job”, which shows the indicator 5.89, which is lower in comparison with the JS_2 “I would recommend a job like mine to a good friend” with the mean value of 5.69. In case of the observation of data means with the division by countries, mean values are still above average (4.00).

Table 5.7. Univariate Analysis: Perceived organizational support

Item	N	Min	Max	Mean	St.D.
POS_1 My organization really cares about my well-being	331	1	7	5.44	1.295
POS_2 My organization cares about my opinions	331	1	7	5.36	1.369
POS_3 My organization is willing to help me if I need a special favor	331	1	7	5.31	1.401
POS_4 My organization would forgive a honest mistake on my part	331	1	7	4.81	1.399

With respect to perceived organizational support construct, it can be seen from Table 5.7 that the group includes four items (POS_1, POS_2, POS_3 and POS_4). All the means are above average value (4.00). The greatest mean value is taken by the item POS_1 “My organization really cares about my well-being”, which shows the indicator 5.44. The lowest value demonstrates POS_4 “My organization would forgive a honest mistake on my part” with the mean of 4.81.

Table 5.8. Univariate Analysis: Family supportive organizational perceptions

Item	N	Min	Max	Mean	St.D.
FSOP_1 Work should be the primary priority in a person's life	331	1	7	4.57	2.084
FSOP_2 Long hours inside the office are the way to achieve advancement	331	1	7	5.27	1.948
FSOP_3 It is best to keep family matters separate from work	331	1	7	2.19	1.376
FSOP_4 It is prohibited at work to talk about personal non-work matters	331	1	7	4.26	1.635
FSOP_5 Employees who are highly committed to their personal lives cannot be highly committed to their work	331	1	7	4.54	1.746
FSOP_6 Employees are given ample opportunity to perform both their job and their personal responsibilities well	331	1	7	5.07	1.444
FSOP_7 Offering employees flexibility in completing their work is viewed as a strategic way of doing business	331	1	7	5.05	1.695

Regarding family supportive organizational perceptions construct, Table 5.8 shows that the group includes seven items (FSOP_1, FSOP_2, FSOP_3, FSOP_4, FSOP_5, FSOP_6 and FSOP_7). FSOP_1, FSOP_2, FSOP_3, FSOP_4 and FSOP_5 are reversely coded items. As shown in the Table 5.8, not all the means are above average value (4.00). The greatest mean value is taken by the item FSOP_2 “Long hours inside the office are the way to achieve advancement”, which shows the indicator 5.27. The lowest value demonstrates FSOP_3 “It is best to keep family matters separate from work” with the mean value of 2.19.

Table 5.9. Univariate Analysis: Trust in supervisors

Item	N	Min	Max	Mean	St.D.
TiS_1 I feel quite confident that my leader will always try to treat me fairly	331	1	7	5.56	1.165
TiS_2 My manager would never try to gain an advantage by deceiving workers	331	1	7	5.54	1.301
TiS_3 I would support my leader in almost any emergency	331	1	7	5.58	1.158

In relation to trust in supervisors construct, Table 5.9 shows that the group includes three items (TiS_1, TiS_2 and TiS_3). All the means are above average (4.00) and fluctuate around the same value point. The greatest mean value is taken by the item TiS_3 “I would support my leader in almost any emergency”, which shows the indicator 5.58. The lowest value demonstrates TiS_2 “My manager would never try to gain an advantage by deceiving workers” with the mean of 5.54.

Table 5.10. Univariate Analysis: Employee affective commitment

Item	N	Min	Max	Mean	St.D.
EAC_1 I would be happy to work at my organization until I retire	331	1	7	4.63	1.460
EAC_2 Working at my organization has a great deal of personal meaning to me	331	1	7	5.61	1.371
EAC_3 I really feel that problems faced by my organization are also my problems	331	1	7	5.27	1.392
EAC_4 I am proud to tell others I work at my organization	331	1	7	5.93	1.273

With reference to employee affective commitment, Table 5.10 shows that the group includes four items (EAC_1, EAC_2, EAC_3 and EAC_4). All the means are above average (4.00). The greatest mean value is shown by the item EAC_4 “I am proud to tell others I work at my organization”, which shows the indicator 5.93. The lowest value is demonstrated by item EAC_1 “I would be happy to work at my organization until I retire” with the mean of 4.63.

Table 5.11. Univariate Analysis: Colleagues' voluntary PEB at work

Item	N	Min	Max	Mean	St.D.
Cpeb_1 My colleagues take part in environmentally friendly programs (e.g., bike/walk to work day, bring your own local lunch day)	331	1	7	4.48	1.567
Cpeb_2 My colleagues make suggestions about environmentally friendly practices to managers and/or environmental committees, in an effort to increase my organization's environmental performance	331	1	7	4.66	1.666
Cpeb_3 My colleagues try to use electronic materials rather than print them out	331	1	7	5.42	1.767
Cpeb_4 My colleagues take initiative to contribute to pro-environmental behavior of our company (trainings, conferences, debates, meetings, etc.)	331	1	7	4.70	1.632
Cpeb_5 My colleagues always look for the opportunities to reduce environmental impact in their work	331	1	7	4.77	1.580

In relation to colleagues' voluntary PEB at work, Table 5.11 shows that the group includes five items (Cpeb_1, Cpeb_2, Cpeb_3, Cpeb_4 and Cpeb_5). All the means are above average (4.00). The greatest mean value is shown by the item Cpeb_3 "My colleagues try to use electronic materials rather than print them out", which shows the indicator 5.42. The lowest value is demonstrated by item Cpeb_1 "My colleagues take part in environmentally friendly programs (e.g., bike/walk to work day, bring your own local lunch day)" with the mean of 4.48.

Table 5.12. Univariate Analysis: Perceived organizational environmental support

Item	N	Min	Max	Mean	St.D.
POES_1 My company is willing to assist employees in solving environmental problems	331	1	7	5.27	1.631
POES_3 Many top level managers in my organization are personally and actively involved in developing environmental protection policies and monitoring their implementation	331	1	7	5.12	1.789
POES_4 My organization has detailed written policies concerned with protecting the environment	331	1	7	5.12	1.803
POES_5 My company encourages me to engage in pro-environmental behavior patterns	331	1	7	5.11	1.810
POES_6 I have the feeling that with my suggestion on pro-environmental behavior patterns I can make a difference in the company	331	1	7	4.73	1.579

As to perceived organizational environmental support, Table 5.12 shows that the group includes five items (POES_1, POES_3, POES_4, POES_5 and POES_6). All the means are above average (4.00). The greatest mean value is shown by the item POES_1 "My company is willing to assist employees in solving environmental problems", which shows the indicator 5.27. The lowest value is demonstrated by item

POES_6 “I have the feeling that with my suggestion on pro-environmental behavior patterns I can make a difference in the company” with the mean of 4.73.

Table 5.13. Univariate Analysis: Personal environmental awareness

Item	N	Min	Max	Mean	St.D.
PEA_1 I wouldn't take a job with a company I knew produced hazardous consequences for the environment	331	1	7	4.32	1.649
PEA_2 I feel a personal obligation to do whatever I can to prevent climate change	331	1	7	4.58	1.508
PEA_3 I would be willing to pay much higher taxes in order to protect the environment	331	1	7	3.83	1.662
PEA_4 I would be willing to pay much higher prices in order to protect the environment	331	1	7	3.90	1.621

Touching on personal environmental awareness, Table 5.13 shows that the group includes four items (PEA_1, PEA_2, PEA_3 and PEA_4). The mean values fluctuate around above average (4.00). The greatest mean value is shown by the item PEA_2 “I feel a personal obligation to do whatever I can to prevent climate change”, which shows the indicator 4.58. The lowest value is demonstrated by item PEA_3 “I would be willing to pay much higher taxes in order to protect the environment” with the mean of 3.83.

Table 5.14. Univariate Analysis: Environmental concern

Item	N	Min	Max	Mean	St.D.
EC_1 Humanity is severely abusing the environment	331	1	7	6.31	1.151
EC_2 The balance of nature is delicate and easily upset	331	1	7	6.15	1.143
EC_3 The earth is like a spaceship with only limited room and resources	331	1	7	5.91	1.272
EC_4 Humanity is supposed to rule over the rest of nature	331	1	7	5.17	2.084
EC_5 Humans need not adapt to their natural environment because they can remake it to suit their needs	331	1	7	4.33	1.769

Referring to environmental concern, Table 5.14 shows that the group includes five items (EC_1, EC_2, EC_3, EC_4 and EC_5). EC_4 and EC_5 are reversely coded items. All the means are above average (4.00). The greatest mean value is shown by the item EC_1 “Humanity is severely abusing the environment”, which shows the indicator 6.31. The lowest value is demonstrated by item EC_5 “Humans need not adapt to their natural environment because they can remake it to suit their needs” with the mean of 4.33.

Table 5.15. Univariate Analysis: Descriptive norms

Item	YES		NO	
	N	%	N	%
DN_1 Do you know any family members and/or friends who work for an environmental organization (e.g., renewable energy organization, environmental consultants, the ministry of the environment, non-governmental environmental organization, etc.)?	68	20.5	263	79.5
DN_2 Do your family members and/or friends endorse environmentally friendly programs?	92	27.8	239	72.2
DN_3 Do your co-workers practice environmentally friendly behaviors that you know about or have seen?	99	29.9	232	70.1
DN_4 Do your co-workers endorse environmentally friendly programs?	87	26.3	244	73.7

With regard to descriptive norms, the construct consists of four dichotomic items that are “yes” or “no” questions: DN_1, DN_2, DN_3 and DN_4. Table 5.15 demonstrates the response distribution among items. On average, “yes” answers were selected in less cases than “no” answers. The general average is not higher than 29.9% (item DN_3). For the current research we have re-codified the variable into the observable one by the following manner: each “yes” answer summed one point and each “no” answer summed 0 points. After performing the calculation for each respondent answer, we have obtained the scale variable according to the data resulting from the described calculation with maximum score of 4 and minimum score of 0.

Table 5.16. Univariate Analysis: Environmental values and attitudes

Item	N	Min	Max	Mean	St.D.
EVA_1 It is important to me whether a product I buy has no negative effects on the environment	331	1	7	4.35	1.644
EVA_2 Since one person cannot have any effect upon pollution and natural resource problems, it doesn't make any difference what I do	331	1	7	4.50	1.645
EVA_3 If all of us, individually make a contribution to environmental protection, it will have a significant effect	331	1	7	5.69	1.124
EVA_4 Environmental issues are very important to me	331	1	7	4.62	1.616

Referring to environmental values and attitudes, Table 5.16 shows that the group includes five items (EVA_1, EVA_2, EVA_3 and EVA_4). EVA_2 is reversely coded item. The mean values are above average (4.00). The greatest mean value is shown by the item EVA_3 “If all of us, individually make a contribution to environmental protection, it will have a significant effect”, which shows the indicator 5.69. The lowest value is demonstrated by item EVA_1 “It is important to me whether a product I buy has no negative effects on the environment” with the mean of 4.35.

Table 5.17. Univariate Analysis: Harmonious environmental passion

Item	N	Min	Max	Mean	St.D.
HEP_1 I am passionate about the environment	331	1	7	3.92	1.578
HEP_2 I enjoy engaging in environmentally friendly behaviors	331	1	7	4.54	1.450
HEP_3 I enthusiastically discuss environmental issues with others	331	1	7	4.11	1.559
HEP_4 I passionately encourage others to be more environmentally responsible	331	1	7	4.10	1.587
HEP_5 I am a volunteered member of an environmental group	331	1	7	2.14	1.812

With regard to harmonious environmental passion, Table 5.17 shows that the group includes five items (HEP_1, HEP_2, HEP_3, HEP_4 and HEP_5). The mean values fluctuate around above average (4.00). The greatest mean value is shown by the item HEP_2 “I enjoy engaging in environmentally friendly behaviors”, which shows the indicator 4.54. The lowest value is demonstrated by item HEP_5 “I am a volunteered member of an environmental group” with the mean of 2.14.

Table 5.18. Univariate Analysis: Private life voluntary PEB

Item	N	Min	Max	Mean	St.D.
PLpeb_1 I recycle wastes (e.g., cans, bottles, paper, plastic)	331	1	7	4.16	1.872
PLpeb_2 I save water by taking shorter showers	331	1	7	5.49	1.635
PLpeb_3 I use electricity and hot water efficiently	331	1	7	5.77	1.382
PLpeb_4 In my selection of transportation, I try to use trains rather than planes	331	1	7	4.37	1.669
PLpeb_5 I try not to use plastic carry bags and go shopping with my own bag	331	1	7	3.75	1.767
PLpeb_6 I prefer products with eco-labeled packages	331	1	7	3.88	1.743
PLpeb_7 I make sure that during the winter the heating system in my room is not switched on too high	331	1	7	5.35	1.702
PLpeb_8 Whenever possible, I take a shower instead of a bath in order to conserve water	331	1	7	5.56	1.601
PLpeb_9 I drive whenever it suits me	331	1	7	3.37	1.621
PLpeb_10 I stopped buying a product because it caused environmental problems	331	1	7	3.60	1.812
PLpeb_11 I buy products made from recycled products (e.g., toiled paper, paper towels, napkins made from recycled paper)	331	1	7	3.71	1.789
PLpeb_12 I have convinced members of my family or friends not to buy some products which are harmful to the environment	331	1	7	3.22	2.064

Regarding private life voluntary PEB, Table 5.18 shows that the group includes twelve items (PLpeb_1, PLpeb_2, PLpeb_3, PLpeb_4, PLpeb_5, PLpeb_6, PLpeb_7, PLpeb_8, PLpeb_9, PLpeb_10, PLpeb_11 and PLpeb_12). PLpeb_9 is a reversely coded item. The mean values fluctuate around above average (4.00), not going lower than 3.22 (PLpeb_12 “I have convinced members of my family or friends

not to buy some products which are harmful to the environment”) and not getting higher than 5.77 (PLpeb_3 “I use electricity and hot water efficiently”).

Table 5.19. Univariate Analysis: Voluntary PEB at work

Item	N	Min	Max	Mean	St.D.
Wpeb_1 When talking to my customers about investment decisions, I try to take firms that care about environmental and social issues (e.g., prevention of environmental damage, care about quality of life of their employees and community) and raise awareness of clients on that issue	331	1	7	4.14	1.470
Wpeb_2 When going to work I use environmentally friendly transport options (e.g., taking public transportation, rather than using a car)	331	1	7	4.62	1.538
Wpeb_3 I give suggestions to managers for improving pro-environmental behavior at my work	331	1	7	4.23	1.583
Wpeb_4 I try to use electronic materials rather than print them out	331	1	7	5.79	1.607
Wpeb_5 I take initiative to contribute to pro-environmental behavior of my company (trainings, conferences, debates, meetings, etc.)	331	1	7	4.26	1.653
Wpeb_6 I encourage my colleagues to express their ideas and opinions on environmental issues	331	1	7	4.09	1.539
Wpeb_7 I give my time to help my colleagues take the environment into account at work	331	1	7	4.03	1.457
Wpeb_8 I speak to my colleagues to help them better understand the environmental problems	331	1	7	3.95	1.496
Wpeb_9 I volunteer for projects or events that address environmental issues in my organization	331	1	7	3.92	1.567
Wpeb_10 I suggest new practices that could improve the environmental performance of my organization	331	1	7	4.08	1.540

With respect to voluntary PEB at work, Table 5.19 shows that the group includes ten items (Wpeb_1, Wpeb_2, Wpeb_3, Wpeb_4, Wpeb_5, Wpeb_6, Wpeb_7, Wpeb_8, Wpeb_9 and Wpeb_10). The mean values are almost meeting average value requirement (4.00): the lowest value is 3.92. The lowest mean value demonstrates item Wpeb_9 “I volunteer for projects or events that address environmental issues in my organization”, and the highest mean value of 5.79 shows item Wpeb_4 “I try to use electronic materials rather than print them out”.

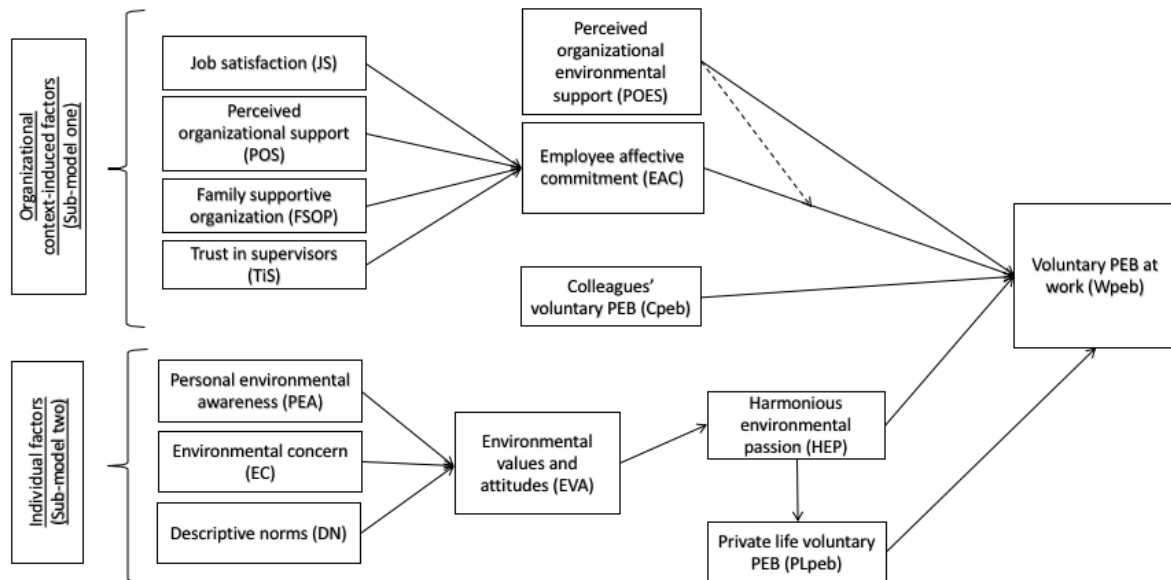
5.2.2. Hypotheses testing: CFA and SEM analysis

In the current section we graphically describe the general conceptual model and two sub-models derived from it. The conceptual sub-models are tested with the data obtained in Kazakhstani and Ecuadorian banking sector. For that purpose, Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) are applied to the collected data.

5.2.2.1. Conceptual model: summary

The following Figure 5.1 demonstrates general conceptual model of the current PhD thesis graphically, summarizing the proposed research hypotheses.

Figure 5.1. Conceptual Model Summary: Graphical Description

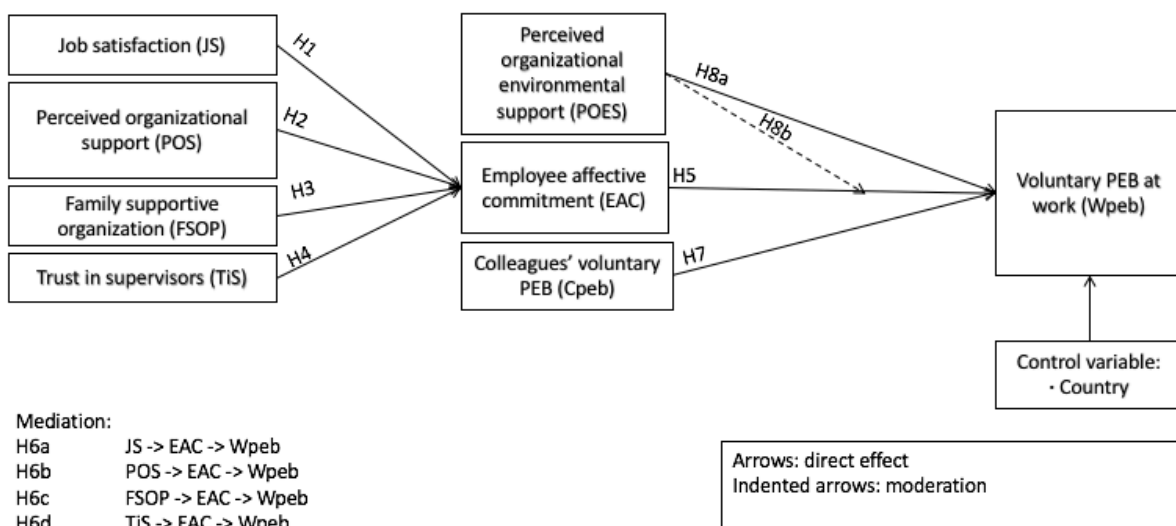


In addition to the theoretical hypotheses proposed in the present thesis, we have controlled for country in relation to our analysis, as we described previously.

5.2.2.2. Sub-model one: CFA and SEM

The following Figure 5.2 presents our conceptual Sub-model One, summarizing our research hypotheses.

Figure 5.2. Conceptual Sub-model One: Graphical Description



5.2.2.2.1. Sub-model one: scales, reliability and validity

Firstly, we tested the existence of common method bias following two different tests to determine the extent of variance. On the one hand, based on the Harman one-factor test (Podsakoff & Organ, 1986) the results showed that a single general factor did not account for most variance in an exploratory factor analytic (only 18.70%), indicating that the presence of common method variance was unlikely to be significant. On the other hand, based on the approach of Podsakoff, MacKenzie, Lee, & Podsakoff (2003) a new model with all the observed variables loading on one factor was re-estimated, and the results were unacceptable (Chi-square=5996.046; df=740; RMSEA=0.147). Altogether, these results suggested that common method bias was not a problem in this study.

To operationalize the variables, the current study relies on previously validated scales (except voluntary PEB at work, partially validated and partially newly developed, as previously stated), measured on seven-point Likert scales (1=totally disagree; 7=totally agree), as it was described in section 5.1.2.

Table 5.20. Confirmatory Factor Analysis (sub-model one): summary measurement results, validity and reliability

	Standardized Loadings
JS (CR=0.890; AVE=0.801; CA=0.886)	
JS_1 Generally speaking, I am satisfied with my job	0.915
JS_2 I would recommend a job like mine to a good friend	0.875
POS (CR=0.912; AVE=0.775; CA=0.909)	
POS_1 My organization really cares about my well-being	0.874
POS_2 My organization cares about my opinions	0.895
POS_3 My organization is willing to help me if I need a special favor	0.871
FSOP (CR=0.799; AVE=0.665; CA=0.791)	
FSOP_6 Employees are given ample opportunity to perform both their job and their personal responsibilities well	0.784
FSOP_7 Offering employees flexibility in completing their work is viewed as a strategic way of doing business	0.846
TiS (CR=0.831; AVE=0.628; CA=0.847)	
TiS_1 I feel quite confident that my leader will always try to treat me fairly	0.957
TiS_2 My manager would never try to gain an advantage by deceiving workers	0.655
TiS_3 I would support my leader in almost any emergency	0.734
EAC (CR=0.814; AVE=0.599; CA=0.805)	
EAC_1 I would be happy to work at my organization until I retire	0.608
EAC_2 Working at my organization has a great deal of personal meaning to me	0.874
EAC_3 I really feel that problems faced by my organization are also my problems	0.814
Cpeb (CR=0.930; AVE=0.770; CA=0.926)	
Cpeb_2 My colleagues make suggestions about environmentally friendly practices to managers and/or environmental committees, in an effort to increase my organization's environmental performance	0.904
Cpeb_3 My colleagues try to use electronic materials rather than print them out	0.753
Cpeb_4 My colleagues take initiative to contribute to pro-environmental behavior of our company (trainings, conferences, debates, meetings, etc.)	0.897
Cpeb_5 My colleagues always look for the opportunities to reduce environmental impact in their work	0.945
POES (CR=0.964; AVE=0.842; CA=0.961)	
POES_1 My company is willing to assist employees in solving environmental problems	0.908
POES_3 Many top level managers in my organization are personally and actively involved in developing environmental protection policies and monitoring their implementation	0.959

	Standardized Loadings
POES_4 My organization has detailed written policies concerned with protecting the environment	0.940
POES_5 My company encourages me to engage in pro-environmental behavior patterns	0.966
POES_6 I have the feeling that with my suggestion on pro-environmental behavior patterns I can make a difference in the company	0.806
Wpeb (CR=0.914; AVE=0.727; CA=0.914)	
Wpeb_1 When talking to my customers about investment decisions, I try to take firms that care about environmental and social issues (e.g., prevention of environmental damage, care about quality of life of their employees and community) and raise awareness of clients on that issue	0.788
Wpeb_3 I give suggestions to managers for improving pro-environmental behavior at my work	0.910
Wpeb_5 I take initiative to contribute to pro-environmental behavior of my company (trainings, conferences, debates, meetings, etc.)	0.862
Wpeb_10 I suggest new practices that could improve the environmental performance of my organization	0.847
MODEL FIT SUMMARY	
Chi-square=587.665, df=265; CMIN/DF=2.218	
CFI=0.961; IFI=0.961; TLI=0.952	
RMSEA=0.061	
Note:	
CR: Composite Reliability; AVE: Average Variance Extracted; CA: Cronbach Alpha	
Notation:	
JS: Job Satisfaction; POS: Perceived Organizational Support; FSOP: Family Supportive Organizational Perceptions; TiS: Trust in Supervisors; EAC: Employee Affective Commitment; Cpeb: Colleagues' Voluntary Pro-Environmental Behavior at Work; POES: Perceived Organizational Environmental Support; Wpeb: Voluntary Pro-environmental Behavior at Work	

Content validity was established through a comprehensive literature review and by consulting experienced scholars and academics, as well as banking sector employees, ensuring that the measures satisfied the requirements for content validity. Discriminant validity, convergent validity, and scale reliability were assessed with confirmatory factor analysis, following (Gerbing & Anderson, 1988) guidelines. The results from the estimation of CFA (Table 5.20) show that the overall chi-square for this sub-model was 587.665 with 265 degrees of freedom. We examined four measures of fit, comparative fit index (CFI=0.961), incremental fit index (IFI=0.961), Tucker-Lewis index (TLI=0.952), and root mean square error of approximation (RMSEA=0.061), which are inside conventional cut-off values (Vandenberg & Lance, 2000), so we deemed the sub-model acceptable.

To assess convergent validity we observed individual loadings, and the results show that all items load on their specified latent variables and that each loading is large and significant, thus indicating convergent validity (Anderson & Gerbing, 1988). To assess discriminant validity we observed construct intercorrelations, and the results show that they were significantly different from 1, and that the shared variance between any two constructs (square of their intercorrelations) was less than the average variance explained in the items by the construct (Fornell & Larcker, 1981). Previous table shows that intercorrelations are lower than square root of AVE, indicating that discriminant validity is adequate for all latent variables.

Finally, regarding reliability all constructs presented acceptable levels of composite reliability (CR), considerably exceeding the level of 0.60 recommended by Bagozzi & Yi (1988): job satisfaction (CR=0.890), perceived organizational support (CR=0.912), family supportive organizational perceptions (CR=0.799), trust in supervisors (CR=0.831), employee affective commitment (CR=0.814), colleagues' voluntary PEB (CR=0.930), perceived organizational environmental support (CR=0.946), voluntary PEB at work (CR=0.914). In terms of variance extracted, all latent variables exceeded the recommended level of the average variance extracted (0.50). Therefore, results show that the indicators were sufficient and adequate in terms of how the measurement model was specified for all latent variables.

Table 5.21. Confirmatory Factor Analysis (sub-model one): Correlations between constructs and Average Variance Extracted (AVE)

CONSTRUCT	JS	POS	FSOP	TiS	EAC	Cpeb	POES	Wpeb	AVE
JS	0.895								0.801
FSOP	0.605	0.880							0.775
POS	0.606	0.771	0.816						0.665
TiS	0.494	0.746	0.572	0.792					0.628
EAC	0.603	0.773	0.695	0.671	0.774				0.599
Cpeb	0.512	0.614	0.664	0.553	0.560	0.878			0.770
POES	0.501	0.635	0.705	0.529	0.688	0.850	0.918		0.842
Wpeb	0.378	0.558	0.541	0.454	0.543	0.731	0.710	0.853	0.727

Note: Diagonal is the square root of the AVE

Notation:

JS: Job Satisfaction; POS: Perceived Organizational Support; FSOP: Family Supportive Organizational Perceptions; TiS: Trust in Supervisors; EAC: Employee Affective Commitment; Cpeb: Colleagues' Voluntary Pro-Environmental Behavior at Work; POES: Perceived Organizational Environmental Support; Wpeb: Voluntary Pro-environmental Behavior at Work

5.2.2.2.2. Sub-model one: testing of hypotheses and results

Based on the complexity of the sub-model and the need to test the relationships between the different constructs at the same time, we used structural equation modeling by applying the maximum likelihood method.

To estimate interaction effects using structural equation modelling we followed a method proposed by Little, Bovaird, & Widaman (2006). Little et al. (2006) orthogonalized approach uses the observed covariation pattern among all possible indicators of the interaction to form the latent interaction term. The interaction latent variable and its measures are then directly included in the model.

Following this procedure, the hypothesized sub-model one, including all the direct and moderating effects, was estimated having the results that are shown in next table (Table 5.22).

The fit indexes were inside the conventional cut-off values, thus the sub-model was deemed acceptable (Vandenberg & Lance, 2000): chi-square=2169.855, df=727; CFI=0.916; IFI=0.917; TLI=0.901; RMSEA=0.078. Next, we examine the test of hypotheses proposed in our sub-model.

Table 5.22. Structural Equation Modelling (sub-model one): model fit summary and parameters estimates (model with moderating effects)

HYP.	RELATIONSHIPS	STAND. PAR. ESTIMATE	p-value	TEST
H1	<i>JS → EAC</i>	0.139	0.018	<i>Supported</i>
H2	<i>POS → EAC</i>	0.466	0.000	<i>Supported</i>
H3	<i>FSOP → EAC</i>	0.177	0.028	<i>Supported</i>
H4	<i>TiS → EAC</i>	0.157	0.033	<i>Supported</i>
H5	<i>EAC → Wpeb</i>	0.134	0.014	<i>Supported</i>
H7	<i>Cpeb → Wpeb</i>	0.407	0.000	<i>Supported</i>
H8a	<i>POES → Wpeb</i>	0.365	0.000	<i>Supported</i>
MODERATING EFFECTS				
H8b	<i>EAC x POES → Wpeb</i>	0.160	0.002	<i>Supported</i>
CONTROL EFFECTS				
	<i>COUNTRY</i>	-0.188	0.000	
MODEL FIT SUMMARY				
Chi-square=2169.855, df=727;				
CMIN/DF=2.985				
CFI=0.916; IFI=0.917; TLI=0.901				
RMSEA=0.078				
Notation:				
<i>JS: Job Satisfaction; POS: Perceived Organizational Support; FSOP: Family Supportive Organizational Perceptions; TiS: Trust in Supervisors; EAC: Employee Affective Commitment; Cpeb: Colleagues' Voluntary Pro-Environmental Behavior at Work; POES: Perceived Organizational Environmental Support; Wpeb: Voluntary Pro-Environmental Behavior at Work; Country: 0-Kazakhstan, 1-Ecuador.</i>				

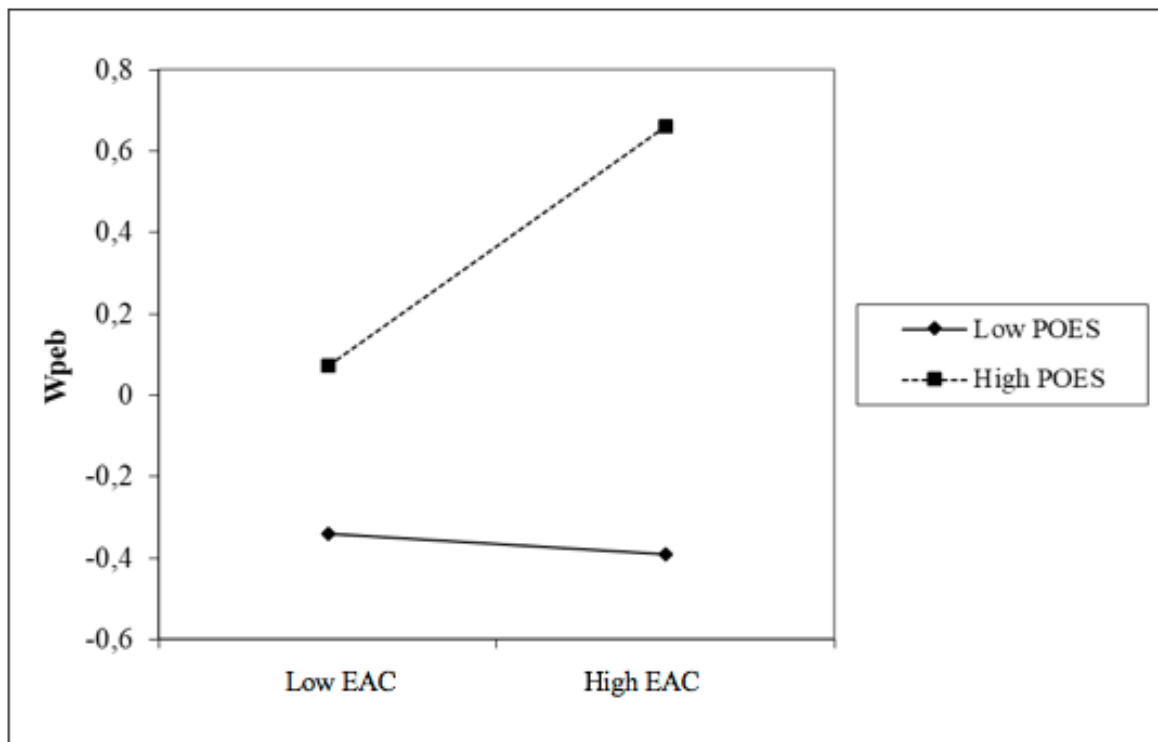
On the one hand, we have found support for the positive influence of the following hypotheses: job satisfaction positively influences employee affective commitment (H1), which returned estimated coefficients of 0.139 ($p < 0.05$); perceived organizational support positively influences employee affective commitment (H2), which returned estimated coefficients of 0.466 ($p < 0.001$); family supportive organizational perceptions positively influences employee affective commitment (H3), which returned estimated coefficients of 0.177 ($p < 0.05$); trust in supervisors positively influences employee affective commitment (H4), which returned estimated coefficients of 0.157 ($p < 0.05$). We also found support for H5, indicating that employee affective commitment positively influences employees' voluntary pro-environmental behavior at work, with an estimated coefficient of 0.134 ($p < 0.05$), and for H7 indicating that colleagues' pro-environmental behavior has a positive effect on employees' voluntary pro-environmental behavior at work, with an estimated coefficient of 0.407 ($p < 0.001$). Also, there was found a positive influence of perceived organizational environmental support on employees' voluntary pro-environmental behavior at work (H8a), with an estimated coefficient of 0.365 ($p < 0.001$).

Lastly, following the procedure explained above with regards to moderating effect, which predicted that perceived organizational environmental support strengthens the positive relationship between employee affective commitment and employees' voluntary pro-environmental behavior at work, the results support this

prediction, as the coefficient for this interaction is positive and significant (0.160; $p < 0.01$) supporting H8b.

To facilitate interpretation of the moderating effect of perceived organizational environmental support on employee affective commitment - employees' voluntary pro-environmental behavior at work relationship, these constructs are depicted graphically using the procedure suggested by (Aiken, West, & Reno, 1991) (see next Figure 5.3).

Figure 5.1. Illustration of moderating effects (sub-model one): EAC x POES



A “pure moderator” modifies the form of the relationship between the criterion and predictor variables. A pure moderator enters into the interaction with predictor variables without being a significant predictor variable and having a negligible correlation with the criterion variable (Cohen & Cohen, 1975; Sharma, Durand, & Gur-Arie, 1981). A “quasi moderator” also modifies the form of the relationship between the criterion and predictor variables. The quasi moderator not only interacts with the predictor variable but it is also a predictor variable (Sharma et al., 1981). Thus, in this case, our results indicate that perceived organizational environmental support is not a pure moderator but a quasi-moderator. This is because, as the coefficients show, the main effect as well as the interaction effect of perceived organizational environmental support is significant.

For testing the hypotheses regarding mediating effects of our sub-model one, we have followed the partial posterior approach (Biesanz, Falk, & Savalei, 2010;

Falk & Biesanz, 2015), which have returned the following results (Table 5.23). The partial posterior approach shows the significance of the relationship between the independent variable and the mediating variable and the relationship between the mediating variable on the dependent variable together (Biesanz et al., 2010). The approach can be considered as an improved version of Sobel's test because it has higher power and, in most cases, adequately controls Type I error (Biesanz et al., 2010; Falk & Biesanz, 2015).

The results support the first mediating hypothesis, which predicted that employee affective commitment mediates the positive relationship between job satisfaction and employees' voluntary pro-environmental behavior at work. The coefficient for this indirect effect is positive and significant (0.019; $p < 0.05$) supporting H6a.

Second mediating hypothesis, which predicted that employee affective commitment mediates the positive relationship between perceived organizational support and employees' voluntary pro-environmental behavior at work, is also supported. The coefficient for this indirect effect is positive and significant (0.062; $p < 0.05$) supporting H6b. Regarding the third mediating hypothesis, which predicted that employee affective commitment mediates the positive relationship between family supportive organizational perceptions and employees' voluntary pro-environmental behavior at work, the results support this prediction, as the coefficient for this indirect effect is positive and significant (0.024; $p < 0.05$) supporting H6c. Fourth and last mediating hypothesis of sub-model one predicted that employee affective commitment mediates the positive relationship between trust in supervisors and employees' voluntary pro-environmental behavior at work. The results support this prediction, as the coefficient for this indirect effect is positive and significant (0.021; $p < 0.05$) supporting H6d.

Table 5.23. Indirect effects (sub-model one)

HYP.	MEDIATING PATH	INDIRECT EFFECT (STANDARDIZED)	p-value	TEST
H6a	<i>JS</i> → <i>EAC</i> → <i>Wpeb</i>	0.019	0.019	<i>Supported</i>
H6b	<i>POS</i> → <i>EAC</i> → <i>Wpeb</i>	0.062	0.011	<i>Supported</i>
H6c	<i>FSOP</i> → <i>EAC</i> → <i>Wpeb</i>	0.024	0.027	<i>Supported</i>
H6d	<i>TiS</i> → <i>EAC</i> → <i>Wpeb</i>	0.021	0.031	<i>Supported</i>

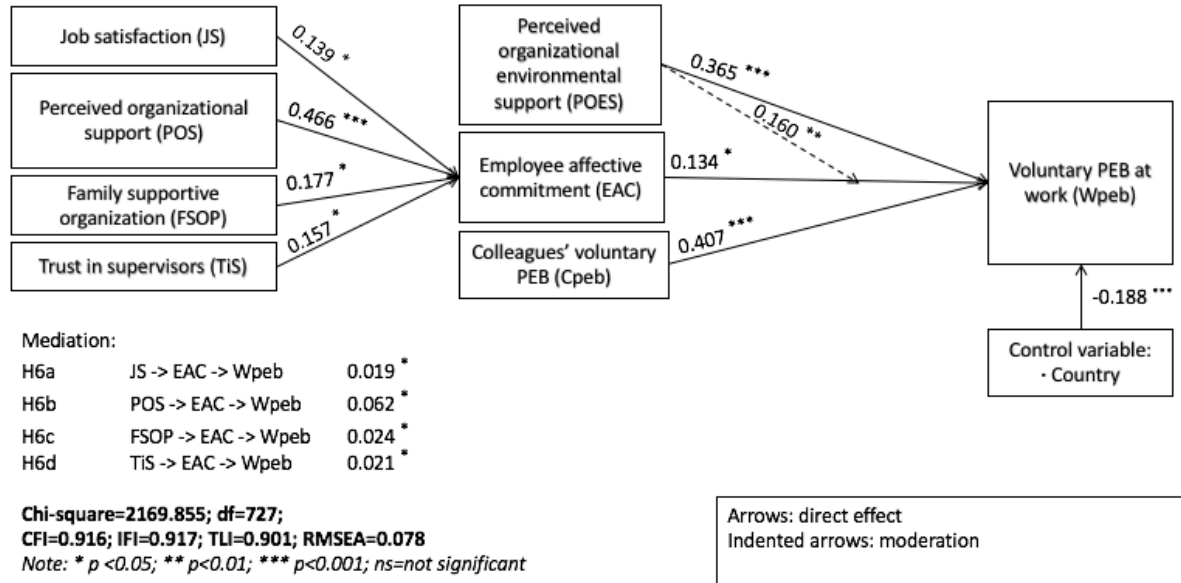
Notation:

JS: Job Satisfaction; *POS*: Perceived Organizational Support; *FSOP*: Family Supportive Organizational Perceptions; *TiS*: Trust in Supervisors; *EAC*: Employee Affective Commitment; *Wpeb*: Voluntary Pro-environmental Behavior at Work

The control variable Country gave a significant negative effect on dependent variable, with an estimated coefficient of -0.188 ($p < 0.001$), which means that employees' voluntary pro-environmental behavior at work is higher in Kazakhstan than in Ecuador in the current sub-model one.

To sum up the result regarding the hypothesized sub-model one, next figure shows the conceptual relationships and the estimated parameters (Figure 5.4).

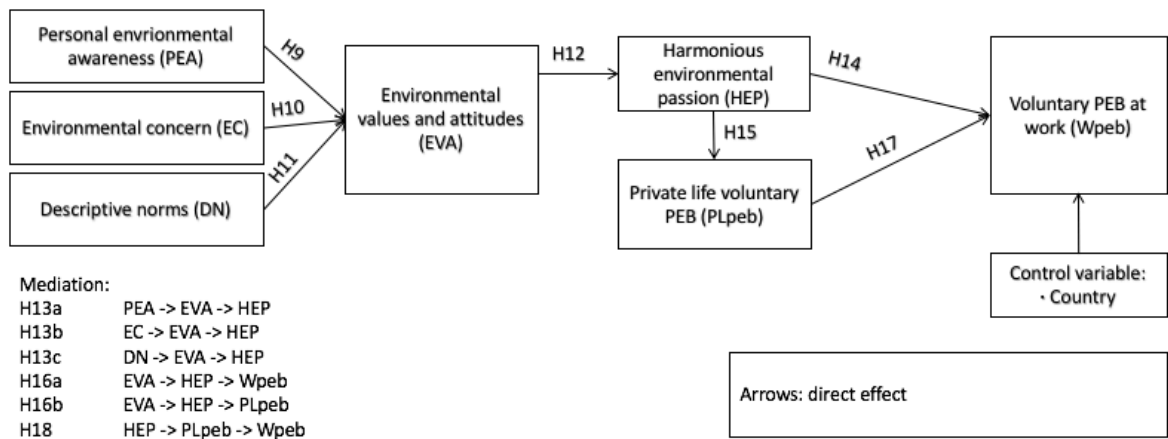
Figure 5.4. Model fit summary and parameters estimates (sub-model one): graphical description



5.2.2.3. Sub-model two: CFA and SEM

The following Figure 5.5 presents our conceptual Sub-model Two, summarizing our research hypotheses.

Figure 5.5. Conceptual Sub-model Two: Graphical Description



5.2.2.3.1. Sub-model two: scales, reliability and validity

Firstly, we tested the existence of common method bias following two different tests to determine the extent of variance. On the one hand, based on the

Harman one-factor test (Podsakoff & Organ, 1986) the results showed that a single general factor did not account for most variance in an exploratory factor analytic (only 23.66%), indicating that the presence of common method variance was unlikely to be significant. On the other hand, based on the approach of Podsakoff et al. (2003) a new model with all the observed variables loading on one factor was re-estimated, and the results were unacceptable (Chi-square=10562.1390; df=820; RMSEA=0.190). Altogether, these results suggested that common method bias was not a problem in this study.

Table 5.24. Confirmatory Factor Analysis (sub-model two): summary measurement results, validity and reliability

	Standardized Loadings
PEA (CR=0.896; AVE=0.746; CA=0.885)	
PEA_2 I feel a personal obligation to do whatever I can to prevent climate change	0.686
PEA_3 I would be willing to pay much higher taxes in order to protect the environment	0.906
PEA_4 I would be willing to pay much higher prices in order to protect the environment	0.973
EC (CR=0.810; AVE=0.587; CA=0.808)	
EC_1 Humanity is severely abusing the environment	0.719
EC_2 The balance of nature is delicate and easily upset	0.790
EC_3 The earth is like a spaceship with only limited room and resources	0.788
EVA (CR=0.890; AVE=0.801; CA=0.888)	
EVA_1 It is important to me whether a product I buy has no negative effects on the environment	0.860
EVA_4 Environmental issues are very important to me	0.929
HEP (CR=0.935; AVE=0.784; CA=0.933)	
HEP_1 I am passionate about the environment	0.852
HEP_2 I enjoy engaging in environmentally friendly behaviors	0.817
HEP_3 I enthusiastically discuss environmental issues with others	0.935
HEP_4 I passionately encourage others to be more environmentally responsible	0.932
PLpeb (CR=0.923; AVE=0.751; CA=0.922)	
PLpeb_6 I prefer products with eco-labeled packages	0.860
PLpeb_10 I stopped buying a product because it caused environmental problems	0.845
PLpeb_11 I buy products made from recycled products (e.g., toiled paper, paper towels, napkins made from recycled paper)	0.858
PLpeb_12 I have convinced members of my family or friends not to buy some products which are harmful to the environment	0.902
Wpeb (CR=0.930; AVE=0.815; CA=0.929)	
Wpeb_6 I encourage my colleagues to express their ideas and opinions on environmental issues	0.909
Wpeb_7 I give my time to help my colleagues take the environment into account at work	0.920
Wpeb_8 I speak to my colleagues to help them better understand the environmental problems	0.879
MODEL FIT SUMMARY	
Chi-square=428.227, df=150; CMIN/DF=2.855	
CFI=0.953; IFI=0.953; TLI=0.940	
RMSEA=0.075	
Note:	
<i>CR: Composite Reliability; AVE: Average Variance Extracted; CA: Cronbach Alpha</i>	
Notation:	
<i>PEA: Personal Environmental Awareness; EC: Environmental Concern; EVA: Environmental Values and Attitudes; HEP: Harmonious Environmental Passion; PLpeb: Private Life Voluntary Pro-environmental Behavior; Wpeb: Voluntary Pro-environmental Behavior at Work</i>	

To operationalize the variables, the current study relies on previously validated scales (except voluntary PEB at work, partially validated and partially newly developed, as it was said previously), measured on seven-point scales (1=totally disagree; 7=totally agree), as it was described in section 5.1.2.

Content validity was established through a comprehensive literature review and by consulting experienced scholars and academics, as well as banking sector employees, ensuring that the measures satisfied the requirements for content validity. Discriminant validity, convergent validity, and scale reliability were assessed with confirmatory factor analysis, following (Gerbing & Anderson, 1988) guidelines. The results from the estimation of CFA (Table 5.24) show that the overall chi-square for this sub-model was 428.227 with 150 degrees of freedom. We examined four measures of fit, comparative fit index (CFI=0.953), incremental fit index (IFI=0.953), Tucker-Lewis index (TLI=0.940), and root mean square error of approximation (RMSEA=0.075), which are inside conventional cut-off values (Vandenberg & Lance, 2000), so we deemed the sub-model acceptable.

Table 5.25. Confirmatory Factor Analysis (sub-model two): Correlations between constructs and Average Variance Extracted (AVE)

CONSTRUCT	PEA	EC	DN	EVA	HEP	Plpeb	Wpeb	AVE
PEA	0.864							0.746
EC	0.172	0.766						0.587
DN	0.515	-0.083	1.000					1.000
EVA	0.794	0.228	0.607	0.895				0.801
HEP	0.731	0.266	0.569	0.765	0.885			0.784
Plpeb	0.759	0.054	0.613	0.829	0.770	0.867		0.751
Wpeb	0.537	0.277	0.389	0.432	0.670	0.540	0.903	0.815

Note: Diagonal is the square root of the AVE

Notation:

PEA: Personal Environmental Awareness; EC: Environmental Concern; EVA: Environmental Values and Attitudes; HEP: Harmonious Environmental Passion; Plpeb: Private Life Voluntary Pro-environmental Behavior; Wpeb: Voluntary Pro-environmental Behavior at Work

To assess convergent validity we observed individual loadings, and the results show that all items load on their specified latent variables and that each loading is large and significant, thus indicating convergent validity (Anderson & Gerbing, 1988). To assess discriminant validity we observed construct intercorrelations, and the results show that they were significantly different from 1, and that the shared variance between any two constructs (square of their intercorrelations) was less than the average variance explained in the items by the construct (Fornell & Larcker, 1981).

Table 5.25 shows that intercorrelations are lower than square root of AVE, indicating that discriminant validity is adequate for all latent variables. Finally, reliability of all constructs presented acceptable levels of composite reliability (CR), considerably exceeding the level of 0.60 recommended by (Bagozzi & Yi, 1988): personal environmental awareness (CR=0.864), environmental concern (CR=0.810), environmental values and attitudes (CR=0.890), harmonious environmental passion (CR=0.935), private life voluntary PEB (CR=0.923), voluntary PEB at work (CR=0.930). In terms of variance extracted, all latent variables exceeded the

recommended level of the average variance extracted (0.50). Therefore, results show that the indicators were sufficient and adequate in terms of how the measurement model was specified for all latent variables.

5.2.2.3.2. Sub-model two: testing of hypotheses and results

Based on the complexity of the sub-model and the need to test the relationships between the different constructs at the same time, we used structural equation modeling by using the maximum likelihood method.

Following this procedure, the hypothesized sub-model two, including all the direct effects, was estimated having the results that are shown in next table (Table 5.26).

Table 5.26. Structural Equation Modelling (sub-model two): model fit summary and parameters estimates (model with moderating effects)

HYP.	RELATIONSHIPS	STAND. PAR. ESTIMATE	P- value	TEST
H9	PEA → EVA	0.665	0.000	Supported
H10	EC → EVA	0.192	0.000	Supported
H11	DN → EVA	0.331	0.000	Supported
H12	EVA → HEP	0.870	0.000	Supported
H14	HEP → Wpeb	0.617	0.000	Supported
H15	HEP → PLpeb	0.804	0.000	Supported
H17	PLpeb → Wpeb	0.168	0.042	Supported
	CONTROL EFFECTS COUNTRY	0.295	0.000	
	MODEL FIT SUMMARY Chi-square=496.292, df=164; CMIN/DF=3.026 CFI=0.945; IFI=0.946; TLI=0.930 RMSEA=0.078			

Notation:
 PEA: Personal Environmental Awareness; EC: Environmental Concern; EVA: Environmental Values and Attitudes; HEP: Harmonious Environmental Passion; PLpeb: Private Life Voluntary Pro-environmental Behavior; Wpeb: Voluntary Pro-environmental Behavior at Work; Country: 0-Kazakhstan, 1-Ecuador

The fit indexes were inside the conventional cut-off values, thus the sub-model was deemed acceptable (Vandenberg & Lance, 2000): chi-square=496.292; df=164; CFI=0.945; IFI=0.946; TLI=0.930; RMSEA=0.078. Next, we examine the test of hypotheses proposed in our sub-model.

On the one hand, we have found support for the positive influence of the following hypotheses: personal environmental awareness positively influences environmental values and attitudes (H9), which returned estimated coefficients of 0.665 ($p < 0.001$); environmental concern positively influences environmental values and attitudes (H10), which returned estimated coefficients of 0.192 ($p < 0.001$); descriptive norms positively influences environmental values and attitudes (H11),

which returned estimated coefficients of 0.331 ($p<0.001$); environmental values and attitudes positively influence harmonious environmental passion (H12), which returned estimated coefficients of 0.870 ($p<0.001$). We also found support for H14, indicating that harmonious environmental passion positively influences employees' voluntary pro-environmental behavior at work, with an estimated coefficient of 0.617 ($p<0.001$), for H15 indicating that harmonious environmental passion positively influences private life voluntary pro-environmental behavior, with an estimated coefficient of 0.804 ($p<0.001$), and for H17 indicating that private life voluntary pro-environmental behavior has a positive effect on employees' voluntary pro-environmental behavior at work, with an estimated coefficient of 0.168 ($p<0.05$).

Table 5.27. Indirect effects (sub-model two)

HYP.	MEDIATING PATH	INDIRECT EFFECT (STANDARDIZED)	P-VALUE	TEST
H13a	PEA → EVA → HEP	0.579	0.000	Supported
H13b	EC → EVA → HEP	0.167	0.000	Supported
H13c	DN → EVA → HEP	0.288	0.000	Supported
H16a	EVA → HEP → Wpeb	0.537	0.000	Supported
H16b	EVA → HEP → PLpeb	0.699	0.000	Supported
H18	HEP → PLpeb → Wpeb	0.104	0.041	Supported

Notation:

PEA: Personal Environmental Awareness; EC: Environmental Concern; EVA: Environmental Values and Attitudes; HEP: Harmonious Environmental Passion; Wpeb: Voluntary Pro-environmental Behavior at Work

For testing the hypotheses regarding mediating effects of our sub-model two, we have followed the partial posterior approach (Biesanz et al., 2010; Falk & Biesanz, 2015), which have returned the following results (Table 5.27). The results support the first mediating hypothesis, which predicted that environmental values and attitudes mediate the positive relationship between personal environmental awareness and harmonious environmental passion. The coefficient for this indirect effect is positive and significant (0.579; $p<0.001$) supporting H13a.

The results also support the second mediating hypothesis, which predicted that environmental values and attitudes mediate the positive relationship between environmental concern and harmonious environmental passion. The coefficient for this indirect effect is positive and significant (0.167; $p<0.001$) supporting H13b. Third mediating hypothesis, which predicted that environmental values and attitudes mediate the positive relationship between descriptive norms and harmonious environmental passion, is also supported, as the coefficient for this indirect effect is positive and significant (0.288; $p<0.001$) supporting H13c.

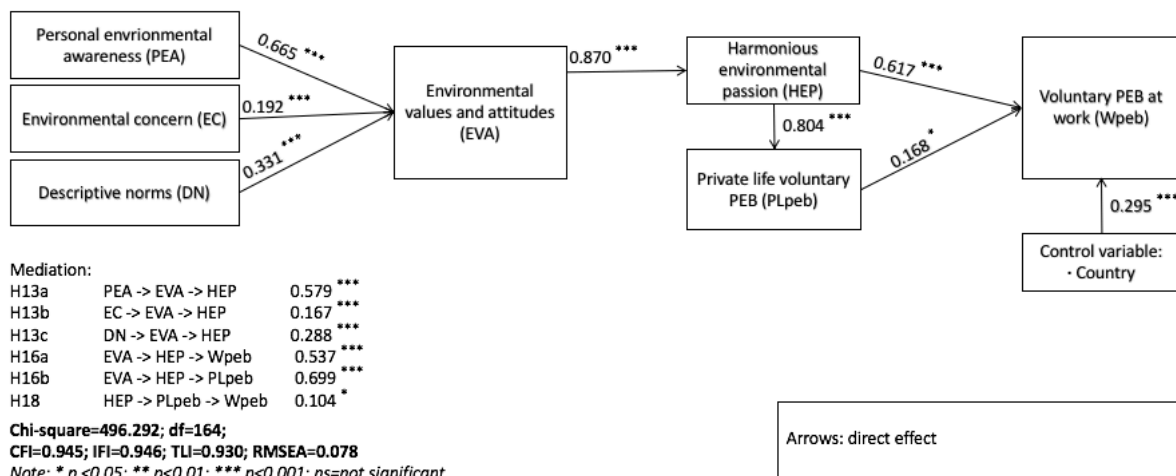
Fourth mediating hypothesis predicted that harmonious environmental passion mediates the positive relationship between environmental values and attitudes and employees' voluntary pro-environmental behavior at work. The results support this prediction, as the coefficient for this indirect effect is positive and significant

(0.537; $p < 0.001$) supporting H16a. Fifth mediating hypothesis predicted that harmonious environmental passion mediates the positive relationship between environmental values and attitudes and private life voluntary pro-environmental behavior. The results support this prediction, as the coefficient for this indirect effect is positive and significant (0.699; $p < 0.001$) supporting H16b. Sixth and last mediating hypothesis of sub-model two, which predicted that private life voluntary pro-environmental behavior mediates the positive relationship between harmonious environmental passion and employees' voluntary pro-environmental behavior at work is also supported. The results support this prediction, as the coefficient for this indirect effect is positive and significant (0.104; $p < 0.05$) supporting H18.

The control variable Country gave a significant positive effect on dependent variable, with an estimated coefficient 0.295 ($p < 0.001$), which means that employees' voluntary pro-environmental behavior at work is higher in Ecuador than in Kazakhstan in the current sub-model two.

To sum up the result regarding the hypothesized sub-model two, next Figure 5.6 shows the conceptual relationships and the estimated parameters.

Figure 5.6. Model fit summary and parameters estimates (sub-model two): graphical description



6. CONCLUSIONES

6.1. Introducción

La importancia del comportamiento verde de los empleados para lograr organizaciones más ecológicas está respaldada por literatura previa (Remmen & Lorentzen, 2000). En particular, las iniciativas voluntarias de los empleados y su disposición a mostrar un comportamiento proambiental de forma voluntaria se consideran una parte importante de la *ecologización* organizativa (Lülfes & Hahn, 2013).

Sin embargo, la literatura previa sobre el comportamiento proambiental voluntario en el trabajo aún es escasa (Ones & Dilchert, 2012; Paillé & Boiral, 2013; Robertson & Barling, 2013) existiendo diferentes *gaps* por cubrir. Algunos de los *gaps* existentes están relacionados con el análisis de los antecedentes que influyen en el comportamiento proambiental voluntario en el trabajo, incluyendo los valores con respecto al medio ambiente (Melo et al., 2018), factores de personalidad (Pavalache-Ilie & Cazan, 2018) y comportamientos proambientales fuera del trabajo (Paillé, Raineri, & Boiral, 2017), entre otros. Existen otros *gaps* relativos a los modelos analizados (Tosti-Kharas et al., 2017) que, normalmente, no incluyen grupos de antecedentes de diferente naturaleza, sin considerar tampoco diferentes mecanismos de mediación (Luu, 2019) en relación con la predicción de comportamientos proambientales voluntarios.

Este trabajo tiene como objetivo contribuir a una mejor comprensión de los antecedentes del comportamiento proambiental voluntario de los empleados en el lugar de trabajo, considerando el papel desempeñado tanto por factores inducidos por el contexto organizativo como factores individuales.

Para lograr los objetivos establecidos, se propone un modelo de investigación que incluye trece antecedentes. Los antecedentes seleccionados se dividen en dos submodelos que consideran los antecedentes inducidos por el contexto organizativo (submodelo uno) y los antecedentes individuales (submodelo dos).

El primer submodelo incluye la satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia y la confianza en el supervisor como antecedentes del compromiso afectivo de los empleados, así como el compromiso afectivo de los empleados, la percepción de apoyo de la organización al medio ambiente y el comportamiento proambiental de los compañeros como antecedentes de la variable dependiente.

Se espera que el compromiso afectivo de los empleados medie en la relación entre la satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia, la confianza en el supervisor y el comportamiento proambiental voluntario de los empleados en el trabajo.

La percepción de apoyo de la organización al medio ambiente modera la relación entre el compromiso afectivo de los empleados y el comportamiento proambiental voluntario de los empleados en el trabajo.

El segundo submodelo, por su parte, incluye la conciencia personal medioambiental, la preocupación por el medio ambiente y las normas descriptivas como antecedentes de los valores y actitudes con respecto al medio ambiente. Los valores y actitudes con respecto al medio ambiente están considerados como antecedentes de la pasión por el medio ambiente armoniosa, también mediando positivamente en la relación entre la conciencia personal medioambiental, la preocupación por el medio ambiente, las normas descriptivas y la pasión por el medio ambiente armoniosa.

La pasión por el medio ambiente armoniosa está considerada un antecedente del comportamiento proambiental voluntario en la vida privada y del comportamiento proambiental voluntario de los empleados en el trabajo. La pasión por el medio ambiente armoniosa media positivamente en la relación entre los valores y actitudes con respecto al medio ambiente y el comportamiento proambiental voluntario en la vida privada/el comportamiento proambiental voluntario de los empleados en el trabajo.

El comportamiento proambiental voluntario en la vida privada está considerado un antecedente del comportamiento proambiental voluntario de los empleados en el trabajo. Además, el comportamiento proambiental voluntario en la vida privada media positivamente en la relación entre la pasión por el medio ambiente armoniosa y el comportamiento proambiental voluntario de los empleados.

El análisis realizado implica la recopilación de datos primarios a través de un cuestionario distribuido entre empleados del sector bancario de Kazajstán y Ecuador.

Los resultados con respecto al primer submodelo muestran las siguientes relaciones estadísticamente significativas:

- La satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia y la confianza en el supervisor influyen positivamente en el compromiso afectivo de los empleados.
- El compromiso afectivo de los empleados tiene un impacto positivo en el comportamiento proambiental voluntario de los empleados en el trabajo.
- El compromiso afectivo de los empleados media positivamente en la relación entre la satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia y la confianza en el supervisor y el comportamiento proambiental voluntario de los empleados en el trabajo.
- La percepción de apoyo de la organización al medio ambiente se relaciona positivamente con el comportamiento proambiental voluntario de los empleados en el trabajo.
- La percepción de apoyo de la organización al medio ambiente modera en la relación entre el compromiso afectivo de los empleados y el comportamiento proambiental voluntario de los empleados en el trabajo.

- El comportamiento proambiental voluntario de los compañeros se relaciona positivamente con el comportamiento proambiental voluntario de los empleados en el trabajo.

Los resultados con respecto al segundo submodelo muestran las siguientes relaciones estadísticamente significativas:

- La conciencia personal medioambiental, la preocupación por el medio ambiente y las normas descriptivas afectan positivamente a los valores y actitudes con respecto al medio ambiente.
- Los valores y actitudes con respecto al medio ambiente están relacionados positivamente con la pasión por el medio ambiente armoniosa.
- Los valores y actitudes con respecto al medio ambiente median positivamente en la relación entre la conciencia personal medioambiental, la preocupación por el medio ambiente y las normas descriptivas y la pasión por el medio ambiente armoniosa.
- La pasión por el medio ambiente armoniosa influye positivamente en el comportamiento proambiental voluntario en la vida privada y el comportamiento proambiental voluntario de los empleados en el trabajo.
- La pasión por el medio ambiente armoniosa media positivamente la relación entre los valores y actitudes con respecto al medio ambiente y el comportamiento proambiental voluntario en la vida privada, y los valores y actitudes con respecto al medio ambiente y el comportamiento proambiental voluntario de los empleados en el trabajo.
- El comportamiento proambiental voluntario en la vida privada tiene un efecto positivo sobre el comportamiento proambiental voluntario de los empleados en el trabajo.
- El comportamiento proambiental voluntario en la vida privada media positivamente la relación entre la pasión por el medio ambiente armoniosa y el comportamiento proambiental voluntario de los empleados en el trabajo.

6.2. Discusión

Los resultados de la investigación actual se entenderán mejor si los submodelos se comentan por separado.

6.2.1. Antecedentes inducidos por el contexto organizativo

El primer submodelo incluye hipótesis relacionadas con factores inducidos por el contexto organizativo que afectan el comportamiento proambiental voluntario de los empleados en el trabajo.

Con respecto a las Hipótesis 1, 2, 3 y 4, los resultados muestran que los antecedentes contextuales estudiados juegan un papel importante en la promoción del comportamiento proambiental voluntario en el trabajo.

Primero, los resultados obtenidos muestran que la satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia y la confianza en el supervisor conducen al compromiso afectivo de los empleados.

La evidencia obtenida está en línea con la teoría del intercambio social (SET). Según la SET, la satisfacción en el trabajo es un producto perfecto para el intercambio social para el compromiso afectivo. Si la organización proporciona las condiciones de trabajo que producen satisfacción en el trabajo, el empleado sentirá la necesidad de devolver el favor en términos de trabajo efectivo. Dado que los intercambios son un patrón social, más que acciones aisladas (es decir, intercambios repetidos con la misma parte dentro de un cierto período de tiempo) (Cook et al., 2013), la satisfacción en el trabajo produciría el compromiso afectivo del empleado.

De manera similar, el apoyo organizativo percibido (POS) y las percepciones de apoyo organizativo a la familia (FSOP) pueden ser un objeto de intercambio que la organización ofrece al empleado. Al tener mecanismos de formación similares, tanto POS como FSOP emergen debido a la percepción del empleado de la medida en que la organización se preocupa por él y valora las contribuciones y el trabajo que el empleado realiza para la organización (Eisenberger & Stinglhamber, 2011). En el caso de las percepciones de apoyo organizativo a la familia, el apoyo está relacionado con la percepción del empleado de la medida en que su organización gestiona adecuadamente la interacción entre familia y trabajo.

La confianza entre empleado y organización se desarrolla debido a las repetidas relaciones de intercambio exitosas que ocurren entre ambos (Eisenberger & Stinglhamber, 2011; Paillé et al., 2019). En particular, la confianza en el supervisor surge cuando el supervisor responde positivamente a las preguntas relacionadas con el trabajo y muestra un trato justo y una valoración de las contribuciones de los empleados. Como comportamiento recíproco, el trabajador desarrolla el compromiso afectivo (Eisenberger & Stinglhamber, 2011).

Por lo tanto, la SET respalda la idea de que el compromiso afectivo de los empleados es el resultado de una norma positiva de reciprocidad que representa que, los empleados están comprometidos con la organización que cumple su parte del intercambio social.

Los resultados obtenidos están en línea con la literatura previa.

Estudios anteriores afirman que la satisfacción en el trabajo afecta positivamente al compromiso afectivo de los empleados. Por ejemplo, Imam et al. (2013) encontraron evidencia de que la satisfacción en el trabajo tiene el mayor impacto en el compromiso afectivo de los empleados en comparación con los componentes de continuidad y compromiso normativo. De igual forma, en un estudio de 160 empleados de la prisión de máxima seguridad del Medio Oeste, Lambert & Hogan (2009) afirman que la satisfacción en el trabajo afecta positivamente al compromiso de los empleados. En un estudio de 99 empleados de varios niveles del sector turístico en Sarawak, Malasia, Yew (2008) afirma que la satisfacción en el trabajo, junto con el salario, está positivamente relacionada con el compromiso afectivo.

En cuanto a la relación directa entre el apoyo organizativo percibido y el compromiso afectivo de los empleados, algunos estudios previos proporcionan evidencia similar que indica que el POS impacta positivamente en el compromiso afectivo. Por ejemplo, en un estudio entre ex alumnos de la universidad de los Estados Unidos, Rhoades et al. (2001) encontraron que el POS afecta positivamente al compromiso afectivo a lo largo del tiempo. Del mismo modo, Lee & Peccei (2007), al realizar un estudio entre 545 y 480 empleados de dos bancos coreanos respectivamente, confirmaron un fuerte efecto positivo que POS tiene sobre el compromiso afectivo de los empleados.

Los resultados logrados con respecto a la relación directa y positiva entre las percepciones de apoyo organizativo a la familia y el compromiso afectivo de los empleados también encontraron cierto apoyo en la literatura previa. Thompson et al. (2004) en un estudio hecho entre 98 organizaciones, encontraron que las percepciones de apoyo organizativo a la familia estaban significativamente relacionadas con el compromiso afectivo. Bourg & Segal (1999) realizaron una investigación entre el personal militar, obteniendo que el apoyo percibido de la política del ejército para las familias resulta en un alto compromiso del soldado, incluido el compromiso afectivo. Igualmente, la meta-análisis desarrollado por Butts et al. (2013) muestra que FSOP influye en el compromiso afectivo de los empleados.

Con respecto al efecto positivo directo de la confianza en el supervisor sobre el compromiso afectivo de los empleados, analizando los hallazgos de las 4 décadas anteriores, Dirks & Ferrin (2002) han encontrado una fuerte relación positiva entre la confianza en el liderazgo y el compromiso de los empleados. El estudio se basó en un meta-análisis sobre la confianza en el liderazgo. Otro estudio realizado entre obreros británicos del sector manufacturero demostró que la confianza interpersonal impacta positivamente en el compromiso organizativo (Cook & Wall, 1980). Yang & Mossholder (2010) realizaron un estudio en un sistema de salud médica estatal y encontraron evidencia de que la confianza afectiva en el supervisor afecta positivamente en el compromiso afectivo organizativo.

Aunque los resultados con respecto a las Hipótesis 1, 2, 3 y 4 no son totalmente nuevos, nuestros hallazgos introducen alguna novedad con respecto al sector donde se realizó la investigación, el sector bancario, y el país de los encuestados, Kazajstán y Ecuador.

Asimismo, los resultados obtenidos muestran que el compromiso afectivo de los empleados es un antecedente directo del comportamiento proambiental voluntario de los empleados en el trabajo (Hipótesis 5).

El compromiso afectivo del empleado puede considerarse un nexo entre el empleado y la organización, pudiendo contribuir al desarrollo de lealtad, así como atenuar las intenciones de abandonar la empresa (Lambert & Hogan, 2009). Este nexo produce preocupación por el bienestar organizativo y por los problemas organizativos. Esto también implica pensamientos innovadores, ir más allá de las responsabilidades

establecidas y participar en actividades que contribuyen al bienestar de la organización (Jaworski & Kohli, 1993), incluido el comportamientos *extra-role*.

La motivación también puede explicar la participación de los empleados en comportamientos *extra-role* ya que el compromiso afectivo de los empleados resulta en una fuerte motivación para producir un mayor nivel de desempeño e influir en el bienestar de la organización (Brown, 2003).

Nuestros hallazgos están en línea con algunos estudios previos. Por ejemplo, Meyer et al. (2002) descubrieron que los empleados comprometidos están dispuestos a participar en actividades *extra-role* como OCB y están interesados en hacer mucho más de lo que sus responsabilidades y deberes les requieren. Del mismo modo, Liu (2009) encontró que el compromiso afectivo influye significativamente en el desarrollo de OCB. Con respecto a OCBE, Temminck et al. (2015) descubrieron que el compromiso influye positivamente en él. Otros autores (Zientara & Zamojska, 2018) obtuvieron resultados similares que confirman que el compromiso afectivo de los empleados tiene un impacto positivo en la participación en OCBE.

En tercer lugar, con respecto a los mecanismos de mediación en las relaciones entre la satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia, la confianza en el supervisor y el comportamiento proambiental voluntario de los empleados en el trabajo (Hipótesis 6a, 6b, 6c y 6d), nuestros hallazgos demostraron que la satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia y la confianza en el supervisor afectan positivamente en el comportamiento proambiental voluntario de los empleados en el trabajo a través del compromiso afectivo del empleado.

Los resultados están en línea con la SET, que interpreta la satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia y la confianza en el supervisor como un bien intercambiable por el cual un empleado se involucra en un comportamiento *extra-role*. Es decir, el trato justo y el cuidado mostrados por la organización junto con un ambiente del trabajo confiable y respetuoso provocan que el empleado contribuya al bienestar de la organización. A veces, cuando las mejoras de los comportamientos *in-role* no son posibles, el deseo de mejora del bienestar organizativo se materializa en comportamientos *extra-role* (Kabasakal et al., 2011), que pueden incluir el desarrollo de comportamientos proambientales voluntarios. En las relaciones entre las variables mencionadas, el compromiso afectivo de los empleados desempeña un papel desencadenante que alienta a los empleados a participar en el comportamiento proambiental voluntario destinado a contribuir a la *ecologización* organizativa como un comportamiento recíproco por el tratamiento positivo mostrado previamente por la organización.

La literatura ha demostrado que el compromiso afectivo de los empleados puede mediar entre los antecedentes distales y algunos comportamientos *extra-role*. Así, algunos estudios respaldan el papel mediador del compromiso afectivo de los empleados entre el POS y el desarrollo de OCB (Liu, 2009). Otros estudios encontraron que el compromiso con la organización media la relación entre el apoyo

organizativo percibido y el desarrollo de OCBE (Paillé & Boiral, 2013). Asimismo, al realizar un estudio entre los maestros de escuela Sesen & Basim (2012) descubrieron que la satisfacción laboral tiene un impacto positivo en OCB-I and OCB-O a través de la mediación del compromiso organizativo (cuya escala está en línea con el compromiso afectivo en lugar de otros componentes del compromiso).

Sin embargo, no se encontraron estudios que prueben empíricamente el efecto mediador del compromiso afectivo entre la satisfacción en el trabajo, las percepciones de apoyo organizativo a la familia y la confianza en el supervisor sobre el comportamiento proambiental voluntario de los empleados en el trabajo en este contexto.

Los resultados obtenidos subrayan que el compromiso afectivo de los empleados es una variable clave en el submodelo propuesto, que afecta directamente e indirectamente en la participación de los empleados en el comportamiento proambiental voluntario en el trabajo. También contribuyen a la literatura existente al mostrar que el impacto de la satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia y la confianza en el supervisor se transmite a través del compromiso afectivo del empleado.

En cuarto lugar, los resultados del primer submodelo confirman el efecto positivo del comportamiento proambiental voluntario de los compañeros en el comportamiento proambiental voluntario de los empleados en el trabajo (Hipótesis 7). Este resultado se basa en la teoría cognitiva social (Bandura, 1989) que establece claramente que el aprendizaje mediante la observación es importante para adquirir patrones de comportamiento.

De nuevo, nuestros hallazgos son consistentes con la escasa investigación previa sobre este tema. Kim et al. (2017) encontraron una relación positiva entre el comportamiento verde del supervisor y el comportamiento verde de los subordinados dentro de un grupo. El estudio se realizó para una muestra de 325 trabajadores de oficina distribuidos en 80 grupos de trabajo en tres empresas surcoreanas, trabajando juntos durante más de 1 año. Además, realizando un estudio entre 139 díadas de líderes subordinados de Canadá y Estados Unidos, Robertson & Barling (2013) han encontrado un efecto positivo del comportamiento proambiental en el lugar de trabajo de los líderes sobre el comportamiento proambiental en el lugar de trabajo de los empleados. En todo caso, los estudios que analizan la relación entre el comportamiento proambiental voluntario de los compañeros y el comportamiento proambiental voluntario de los empleados en el trabajo son escasos.

Finalmente, la percepción de apoyo de la organización al medio ambiente (POES) influye positivamente en el comportamiento proambiental voluntario de los empleados en el trabajo directamente (Hipótesis 8a).

Este resultado está en línea con la SET y OST ya que el POES es un tipo de POS. El POES puede verse como un objeto de intercambio para comportamientos *extra-role*. En este caso, las percepciones de los empleados se refieren al grado en que la organización valora los esfuerzos de los empleados hacia la sostenibilidad (Lamm et

al., 2015). Asimismo, si los empleados no tienen indicaciones claras sobre si su comportamiento proambiental es beneficioso o perjudicial para la organización, POES sería una guía que los motivaría a participar en un comportamiento proambiental.

Desde la perspectiva de la identidad social (Fielding et al., 2008), si el empleado trabaja en una organización que es valorada positivamente por sus referentes, el empleado puede identificarse con la organización, contribuyendo a que internalice sus valores y sean considerados importantes para él. Por lo tanto, los valores organizativos representados por POES fomentarían comportamientos ecológicos, lo que afectaría el comportamiento de los empleados.

Este resultado es consistente con la escasa investigación previa sobre este tema. Lamm et al. (2015) han encontrado una relación positiva entre POES y OCBE, demostrando que si la organización apoya los comportamientos sostenibles de los empleados, probablemente motivará a los empleados a comportarse de una manera proambiental. Temminck et al. (2015) también encontraron que el POS al medio ambiente influye positivamente en el desarrollo de OCBE en un estudio de 547 empleados de dos organizaciones públicas. En un estudio de 59 empleados del sector público, Saifulina & Carballo-Penela (2017) encontraron un impacto significativo de POES en el comportamiento voluntario respetuoso con el medio ambiente en el lugar de trabajo. Paillé & Meija-Morelos (2019) realizando un estudio de 500 estudiantes de una universidad mexicana también confirmaron que POES tiene una influencia positiva en la participación de los empleados en OCBE.

Adicionalmente, nuestros resultados demuestran que el POES modera la relación entre el compromiso afectivo del empleado y su comportamiento proambiental voluntario en el trabajo (Hipótesis 8b). Los resultados muestran que la relación positiva entre el compromiso afectivo de los empleados y el comportamiento proambiental voluntario de los mismos en el trabajo es más fuerte, cuando la precepción de apoyo de la organización al medio ambiente es mayor.

Los hallazgos obtenidos están en línea con la teoría de la identidad social. Desde la perspectiva de la identidad social se establece que, si la organización es valorada positivamente por otras personas significativas del individuo, es más probable que se identifique con la organización donde trabaja. Por lo tanto, el comportamiento en el que el empleado estaría más dispuesto a participar será el que contribuya al grupo con el fin de mejorarlo (Fielding et al., 2008).

La congruencia de valores también explica esta relación, estableciendo que un empleado que posee valores con respecto al medio ambiente sentiría una congruencia de valores con la organización que se percibe que tiene los mismos valores que él, es decir, muestra a sus empleados su compromiso con el medio ambiente (Zientara & Zamojska, 2018).

No hemos encontrado estudios que prueben esta relación. Sin embargo, la literatura previa ha ofrecido alguna evidencia que está en línea con las ideas propuestas. Zientara & Zamojska (2018) descubrieron que un clima organizativo verde

modera la relación entre el compromiso afectivo de los empleados y OCBE de una manera que la relación es más fuerte cuando existe un clima organizativo verde.

Los resultados obtenidos subrayan la importancia directa e indirecta de la percepción de apoyo de la organización al medio ambiente en la promoción del comportamiento proambiental voluntario de los empleados en el trabajo. Al destacar también que POS y FSOP influyen positivamente en el comportamiento proambiental voluntario en el trabajo a través del compromiso de los empleados, los resultados obtenidos muestran el papel relevante de diferentes formas de apoyo organizativo para promover el comportamiento proambiental voluntario de los empleados en el trabajo.

6.2.2. Antecedentes individuales

El segundo submodelo incluye las hipótesis relacionadas con factores individuales que afectan el comportamiento proambiental voluntario de los empleados en el trabajo.

Con respecto a las Hipótesis 9, 10 y 11, los resultados muestran el papel relevante de los antecedentes individuales estudiados.

Primero, la conciencia personal medioambiental, la preocupación por el medio ambiente y las normas descriptivas tienen un efecto positivo en los valores y actitudes con respecto al medio ambiente.

Los nexos entre conciencia personal medioambiental, la preocupación por el medio ambiente y el desarrollo de valores y actitudes con respecto al medio ambiente pueden ser explicados considerando el modelo de activación de normas (NAM). Según el NAM, las normas personales siempre están presentes en la personalidad de los individuos, aunque no siempre estén activas. El detonante para activar las normas ambientales personales, en este caso, está representado por i). la conciencia de las consecuencias perjudiciales de no tomar medidas en la actualidad para proteger el medio ambiente (Stern et al., 1985); ii). la concienciación sobre las acciones necesarias para resolver ciertos problemas medioambientales (Lülfes & Hahn, 2013); y iii). la comprensión de si la persona es capaz/no es capaz de poner en marcha comportamientos para ayudar al medio ambiente (control conductual percibido) (Lülfes & Hahn, 2013).

Nuestros hallazgos también muestran que las normas descriptivas son importantes en la formación de los valores y actitudes con respecto al medio ambiente, lo que está en línea con la teoría de la identidad social. Según la teoría de la identidad social, la identificación con un grupo social contribuye a desarrollar el autoconcepto y la autoimagen (Ashforth & Mael, 1989; Hogg, 2006), a través de los cuales se forman los valores objetivo (de Araujo, 2014). Los valores objetivo están relacionados con la imagen objetivo que las personas buscan. La imagen deseada debe reflejar los valores y actitudes de una persona hacia cierto comportamiento que es importante para el grupo al que pertenece la persona. Los valores objetivo pueden estar representados por valores con respecto al medio ambiente que se desarrollan para dar la impresión de ser proambiental (de Araujo, 2014).

La literatura previa no ha analizado ampliamente el efecto de las variables propuestas sobre los valores y actitudes con respecto al medio ambiente, especialmente en el caso de las normas descriptivas. Sin embargo, algunos estudios están en línea con los hallazgos obtenidos.

En un estudio con 349 encuestados, Li et al. (2013) encontraron una relación positiva entre la conciencia ambiental y el valor verde percibido. Del mismo modo, algunos estudios realizados entre estudiantes de licenciatura y posgrado respaldan la idea de que la preocupación por el medio ambiente tiene un impacto positivo directo en la formación de actitudes positivas hacia los productos verdes (Kirmani & Khan, 2016). Mweemba & Wu (2010) en un estudio de 196 estudiantes zambianos han confirmado la importancia del conocimiento ambiental (es decir, la conciencia personal medioambiental y la preocupación por el medio ambiente) en la formación de actitudes individuales, afirmando que la educación puede cambiar actitudes y creencias. Tang et al. (2014) en un estudio realizado entre 408 estudiantes chinos confirmaron que la preocupación por el medio ambiente afecta positivamente la actitud del consumidor hacia la compra ecológica.

En segundo lugar, de acuerdo con nuestros resultados, los valores y actitudes con respecto al medio ambiente afectan positivamente al desarrollo de una pasión por el medio ambiente armoniosa (Hipótesis 12). Este hallazgo está en línea con la idea de que si algo es muy importante para una persona, desarrolla pasión por el objeto de los valores o actividad valorada (Vallerand, 2015).

La literatura previa proporciona una amplia investigación sobre los antecedentes de la pasión armoniosa, incluyendo los rasgos de personalidad (Balon, Lecoq, & Rimé, 2013; Wang & Yang, 2008), integración de identidad, estilo de identidad informativa, estilo de identidad normativa (Bouizegarene et al., 2018), uso de fortalezas (Dubreuil et al., 2014), impulsividad (Orosz et al., 2018) y personalidad autónoma (Vallerand et al., 2006). Los valores y actitudes con respecto al medio ambiente no se estudiaron como determinantes de la pasión por el medio ambiente armoniosa, lo que aumenta la contribución de nuestros resultados.

Tercero, los resultados muestran que los valores y actitudes con respecto al medio ambiente median positivamente la relación entre la conciencia personal medioambiental, la preocupación por el medio ambiente y las normas descriptivas y la pasión por el medio ambiente armoniosa (Hipótesis 13a, 13b y 13c).

Algunos estudios han considerado la posibilidad de que valores y actitudes actúen como mediadores en diferentes relaciones. Por ejemplo, Armenta et al. (2011) han encontrado que fuertes valores de familiaridad median la relación entre el apego del grupo étnico y algunos comportamientos de ayuda, mientras que los valores estadounidenses dominantes median la relación entre el apego del grupo étnico y el comportamiento prosocial. Aman et al. (2012) han descubierto que las actitudes median parcialmente la relación entre la preocupación por el medio ambiente y la intención de compra ecológica. Tang et al. (2014) en un estudio realizado entre 408 estudiantes chinos confirmaron que las actitudes hacia la compra ecológica median la

relación entre la preocupación por el medio ambiente y la intención de compra ecológica. Sin embargo, hasta donde sabemos, la investigación previa no ha considerado el papel mediador de los valores y actitudes con respecto al medio ambiente en las relaciones estudiadas, lo que agrega valor a los hallazgos obtenidos.

Cuarto, la pasión por el medio ambiente armoniosa tiene un efecto positivo en el comportamiento proambiental voluntario de los empleados en el trabajo y en el comportamiento proambiental voluntario en la vida privada (Hipótesis 14 y 15). De acuerdo con la teoría de ampliación y construcción (BABT), un individuo se comportaría de manera proambiental porque la pasión por el medio ambiente armoniosa provocaría el sentimiento de emociones positivas y energía de realización personal (Fredrickson, 2001; Vallerand, 2008) independientemente del entorno en el que esté: en casa y en el trabajo.

Estos resultados están en línea con las investigaciones previas. Por ejemplo, en una investigación realizada en EE. UU. y Canadá, Robertson y Barling (2013) encontraron que la pasión por el medio ambiente armoniosa resultó en un comportamiento proambiental de los empleados. Otros autores (Saifulina & Carballo-Penela, 2017) muestran resultados similares para empleados de organizaciones públicas en España. Afsar et al. (2016) realizaron un estudio en Tailandia que encontró una influencia positiva de pasión por el medio ambiente armoniosa en el comportamiento proambiental de los empleados.

En quinto lugar, los resultados muestran que la pasión por el medio ambiente armoniosa media positivamente la relación entre los valores y actitudes con respecto al medio ambiente y i). el comportamiento proambiental voluntario en la vida privada, y ii). el comportamiento proambiental voluntario de los empleados en el trabajo (Hipótesis 16a y 16b).

Teniendo en cuenta que los valores y las actitudes pueden no siempre resultar en la participación en el comportamiento en sí mismo, limitándose a generar la intención de realizar ese comportamiento (Lülfes & Hahn, 2013), el estudio actual muestra la importancia de la pasión por el medio ambiente armoniosa como un detonante que provoca que la posesión de valores y actitudes con respecto al medio ambiente desarrolle comportamientos proambientales voluntarios.

La pasión por el medio ambiente armoniosa desempeña el papel de ese detonante porque es una emoción positiva en sí misma, y también genera más emociones positivas cuando las personas participan en la actividad objeto de la pasión. Por tanto, los valores y actitudes proambientales producen pasión por el medio ambiente armoniosa que genera emociones positivas hacia la participación en actividades proambientales.

Según nuestro conocimiento, investigaciones anteriores no han examinado el papel mediador de la pasión por el medio ambiente armoniosa entre los valores y actitudes con respecto al medio ambiente y el comportamiento proambiental voluntario en la vida privada y en el trabajo. Por lo tanto, los resultados obtenidos agregan un

conocimiento interesante en diferentes áreas relacionadas con el comportamiento proambiental voluntario.

Sexto, los resultados muestran que el comportamiento proambiental voluntario en la vida privada tiene un efecto positivo en el comportamiento proambiental voluntario de los empleados en el trabajo (Hipótesis 17).

Nuestros hallazgos están en línea con la teoría del comportamiento planificado (Ajzen, 1991). Según esta teoría, si la persona en la vida privada no posee la necesidad de involucrarse en un tipo de comportamiento, en este caso, proambiental, ese comportamiento no se realizará en el trabajo, a no ser que sea obligatorio. Por el contrario, si la persona realiza cierto comportamiento ambiental en el hogar, es más probable que el individuo tenga el mismo comportamiento en el trabajo.

Nuestros hallazgos son consistentes con la investigación previa sobre este tema. Marans & Lee (1993) proporcionan evidencia de que el desarrollo del comportamiento de reciclaje en la vida privada de los ciudadanos taiwaneses influye en los mismos patrones en el trabajo. Tudor et al. (2007) descubrieron que los empleados que realizan comportamientos de reciclaje en el hogar tenían más probabilidades de hacer lo mismo en el trabajo. Asimismo, una investigación sobre comportamientos de reciclaje ha encontrado que reciclar en casa es más común que en el trabajo (McDonald, 2011). Esta idea también está respaldada por algunos estudios que confirman los mismos resultados (Whitmarsh et al., 2018). Este resultado se podría explicar por la ausencia de instalaciones adecuadas para el reciclaje en el trabajo (McDonald, 2011). Sin embargo, la investigación sobre este tema aún es escasa.

Finalmente, hemos constatado que el comportamiento proambiental voluntario en la vida privada media positivamente la relación entre la pasión por el medio ambiente armoniosa y el comportamiento proambiental voluntario de los empleados en el trabajo (Hipótesis 18).

Dado que la pasión por el medio ambiente armoniosa motiva a las personas a realizar las actividades para apoyar el objeto de la pasión (Robertson & Barling, 2013), este tipo de pasión puede promover comportamiento proambiental voluntario en el hogar. Para evitar la existencia de disonancia cognitiva entre el comportamiento desarrollado en la vida privada y en su trabajo, los individuos desarrollarán comportamientos proambientales voluntarios en el trabajo. Como la investigación previa no ha examinado esta relación, este resultado contribuye a cubrir un *gap* existente.

Por lo tanto, los resultados muestran que hay dos caminos posibles en la relación entre la pasión por el medio ambiente armoniosa y el comportamiento proambiental voluntario en el trabajo: i). la pasión por el medio ambiente armoniosa afecta positivamente el comportamiento proambiental voluntario de los empleados en el trabajo directamente, y ii). la pasión por el medio ambiente armoniosa afecta positivamente el comportamiento proambiental voluntario de los empleados en el trabajo a través del comportamiento proambiental voluntario en la vida privada que actúa como mediador. Estos hallazgos subrayan el papel importante de la pasión por el

medio ambiente armoniosa en el submodelo estudiado destacando que, además de tener una influencia directa en el comportamiento proambiental voluntario, influye en este comportamiento de otras maneras diferentes.

6.3. Contribuciones de este estudio

Los resultados de este estudio contribuyen a la literatura previa sobre sostenibilidad empresarial y, en particular a la literatura sobre comportamiento voluntario proambiental de los empleados en el trabajo desde diferentes perspectivas.

Desde el punto de vista teórico, esta investigación subraya la importancia de preservar el medio ambiente y contribuir a minimizar la huella ecológica de la actividad humana, en la que el mundo corporativo y los negocios juegan un papel importante. Teniendo en cuenta que el uso de los recursos por parte de las corporaciones es inmenso, es imposible lograr un desarrollo sostenible global sin la participación del mundo corporativo.

Asimismo, este estudio conecta la literatura sobre gestión empresarial con la literatura medioambiental. Teniendo en cuenta que la literatura sobre gestión empresarial considera, generalmente, el medio ambiente y la sostenibilidad como un medio para el logro de beneficios y ventajas competitivas, algunas teorías y enfoques descritos en esta investigación, como la teoría de capacidades dinámicas ecocéntricas (EDCT) y el enfoque de sostenibilidad fuerte (*strong sustainability*), subrayan la importancia del medio ambiente también como una restricción a las actividades empresariales. Por ejemplo, la EDCT destaca la posibilidad de introducir conceptos de ecología en la estrategia empresarial, y propone formas de fusionar conceptos medioambientales y los de gestión.

Esta investigación también contribuye a vincular los conceptos de gestión de recursos humanos y sostenibilidad. Al ser un concepto bastante novedoso, la gestión sostenible de los recursos humanos está ganando importancia en la literatura actual sobre gestión de los recursos humanos (App et al., 2012; De Prins et al., 2014; Ehnert & Harry, 2012).

El concepto de gestión de recursos humanos sostenibles (STHRM) todavía está en desarrollo, por lo que surgen algunas preguntas con respecto a las diferencias entre STHRM y la gestión estratégica de recursos humanos (SHRM). En esta investigación, mostramos nuestra visión de algunas diferencias entre ambos enfoques, destacando la importancia de cómo se manejan las tensiones entre las diferentes dimensiones del desarrollo sostenible en cada enfoque, además de considerar el tipo de enfoque de sostenibilidad de ambos conceptos. Creemos que para la perspectiva de STHRM, el enfoque de beneficio mutuo (*win-win approach*), el enfoque de compensación (*trade-off approach*), los enfoques integradores (*integrative approach*) y paradójicos (*paradox approach*) podrían estar en línea con los principios de esta perspectiva, probablemente más con las premisas de sostenibilidad fuerte. Por otro lado, desde la perspectiva de SHRM, las tensiones se manejan tratando de alinear los aspectos

ambientales y sociales con los financieros. Esto implica que los enfoques integradores y paradójicos son más difíciles de considerar desde esta perspectiva.

Además, este estudio subraya la importancia de la gestión de recursos humanos verdes en la *ecologización* de las organizaciones y, particularmente, en la promoción de comportamiento proambiental voluntario en el trabajo. Algunos estudios han señalado el papel de las prácticas y políticas de recursos humanos verdes para promover comportamientos ecológicos obligatorios.

En esta investigación también destacamos papel de gestión de recursos humanos verdes como inductor de comportamiento proambiental voluntario en el trabajo afectando al conjunto de factores inducidos por el contexto organizativo y factores individuales. Las políticas, normas y reglamentos internos de la empresa influyen en la atmósfera entre los empleados (Bombiak & Marciniuk-Kluska, 2018) al establecer un guía del comportamiento recomendado para los empleados, moldeando sus valores con respecto al medio ambiente y alentando su participación en iniciativas medioambientales. Debido a las políticas y prácticas formales que promueven el comportamiento ecológico, los trabajadores pueden participar en tales prácticas. Igualmente, las políticas y prácticas verdes formales pueden motivar la voluntad de aprender sobre problemas ecológicos para aumentar la conciencia de los empleados sobre el tema y formar valores con respecto al medio ambiente.

Adicionalmente, esta investigación destaca la relación bidireccional entre las políticas y prácticas de gestión de recursos humanos verdes y los antecedentes del comportamiento proambiental inducidos por el contexto organizativo e individuales, resaltando que los factores inducidos por el contexto organizativo e individuales también pueden influir en la formación de políticas y prácticas de gestión de recursos humanos verdes formales a través de iniciativas de los empleados. Por ejemplo, si los empleados poseen altos niveles de pasión por el medio ambiente y valores y actitudes con respecto al medio ambiente (factores individuales), pueden alentar a la gerencia a establecer regulaciones o políticas verdes formales sobre temas ambientales en la empresa. Por lo tanto, la gestión de recursos humanos verdes ofrece oportunidades interesantes para comprender las posibles relaciones entre el comportamiento proambiental obligatorio y voluntario.

El papel del empleado en la *ecologización* organizativa es también resaltado. En particular, nuestra investigación señala la importancia de los comportamientos voluntarios para lograr este objetivo porque, al ser una unidad clave de la empresa (Chaudhary, 2018), los empleados participan activamente en actividades organizativas y cambian significativamente su entorno de trabajo a través de su comportamiento (Parker et al., 2010) y la aplicación de iniciativas con respecto al medio ambiente a su rutina diaria de trabajo.

Indudablemente, el enfoque teórico para identificar posibles determinantes del comportamiento proambiental voluntario podría hacerse desde perspectivas diferentes a las que seguimos en esta investigación. La literatura sobre psicología, comportamiento organizativo y proactividad proporcionan marcos teóricos útiles para

abordar los antecedentes estudiados. Al centrar nuestra investigación en la literatura sobre desarrollo sostenible, gestión de recursos humanos sostenibles y gestión de recursos humanos verdes, este estudio destaca la importancia de la gestión de recursos humanos para contribuir a la sostenibilidad global, lograr organizaciones más verdes y, en particular, para promover el comportamiento proambiental voluntario de los empleados en el trabajo.

Finalmente, este estudio reconoce la importancia del sector de servicios (en particular, el sector bancario) cuando se trata del tema del desarrollo sostenible en general. En particular, destacamos la relevancia del sector bancario para mejorar la huella ambiental general del sector de servicios y sus contribuciones al logro de la sostenibilidad global.

Considerando los resultados del análisis empírico, queremos resaltar las siguientes contribuciones.

El modelo estudiado en la investigación actual es complejo e incluye antecedentes de diferente naturaleza, centrándose en los antecedentes poco estudiados o no estudiados por la literatura previa. Creemos que ésta es la primera vez que se estudian los antecedentes propuestos en el mismo modelo conceptual.

Las relaciones de mediación se incluyen en los submodelos uno y dos. La relación de moderación se incluye en el submodelo que estudia los factores inducidos por el contexto organizativo (submodelo uno).

Hemos detectado hallazgos importantes en relación de los antecedentes del comportamiento proambiental voluntario de los empleados en el trabajo y sus antecedentes.

Se destaca el papel del apoyo organizativo percibido en la promoción del comportamiento proambiental voluntario en el trabajo. Los resultados obtenidos destacan los efectos de diferentes tipos de apoyo organizativo, incluido el apoyo organizativo percibido (POS), la percepción del apoyo de la organización al medio ambiente (POES) y las percepciones de apoyo organizativo a la familia (FSOP), a la hora de promover el comportamiento voluntario proambiental en el trabajo. La teoría de apoyo organizacional respalda nuestros hallazgos, que destaca que tanto la participación real de la empresa en las actividades de apoyo como las creencias y percepciones de los empleados sobre ese apoyo son importantes.

El papel de POES debe destacarse especialmente, ya que, además del impacto positivo directo, POES también fortalece la relación entre el compromiso afectivo de los empleados y el comportamiento proambiental voluntario en el trabajo.

El papel mediador del compromiso afectivo de los empleados para la promoción del comportamiento proambiental voluntario en el trabajo también es significativo.

Por el trato justo recibido y el apoyo organizativo, los empleados están “pagando” con su compromiso, participando en comportamientos que benefician a las organizaciones y mejorando el comportamiento en el puesto (*in-role*) de los empleados. A veces, cuando el compromiso afectivo no es suficiente para mejorar los comportamientos

dentro del rol, los empleados se involucran en comportamientos *extra-role*. Esta investigación muestra que esos comportamientos *extra-role* pueden incluir los comportamientos proambientales voluntarios en el trabajo.

Los resultados obtenidos también subrayan la importancia de la pasión por el medio ambiente armoniosa en la promoción del comportamiento proambiental voluntario en el trabajo y en la vida privada.

En primer lugar, nuestros hallazgos demuestran el papel de la pasión por el medio ambiente armoniosa como mediador entre los valores y actitudes con respecto al medio ambiente y i). el comportamiento proambiental voluntario en la vida privada y ii). el comportamiento proambiental voluntario en el trabajo, lo que demuestra que la pasión por el medio ambiente armoniosa puede ser el desencadenante que conecta los valores y actitudes con respecto al medio ambiente con el comportamiento proambiental voluntario. Estos resultados no se reflejan en la literatura previa, lo que agrega valor a este trabajo.

A continuación, se enfatiza el papel de la pasión por el medio ambiente armoniosa como un antecedente directo del comportamiento proambiental voluntario tanto en la vida privada como en el trabajo. Muy pocos estudios han encontrado evidencia sobre la relación entre la pasión por el medio ambiente armoniosa y el comportamiento proambiental voluntario de los empleados en el trabajo y la investigación que vincula la pasión por el medio ambiente armoniosa con el comportamiento proambiental voluntario en el ámbito en la vida privada es aún más escasa. Por lo tanto, este es un hallazgo interesante de esta investigación.

Del mismo modo, los resultados muestran que, además de tener una influencia directa en el comportamiento proambiental voluntario de los empleados en el trabajo, la pasión por el medio ambiente armoniosa también influye en la variable dependiente a través del comportamiento proambiental voluntario en la vida privada. Como la investigación previa no ha examinado la relación mencionada, este resultado contribuye a llenar un vacío en la investigación sobre el comportamiento proambiental voluntario de los empleados en el trabajo.

Adicionalmente, queremos destacar dos hallazgos interesantes relacionados con i). el papel diferente de los antecedentes inducidos por el contexto organizativo e individuales en la promoción del comportamiento proambiental voluntario en el trabajo, y ii). el papel de los países de los empleados en su participación en el comportamiento proambiental voluntario en el trabajo.

Los resultados muestran que los antecedentes inducidos por el contexto organizativo e individuales tienen un efecto significativo en el comportamiento proambiental voluntario en el trabajo. Sin embargo, cada tipo de antecedente afecta a diferentes tipos de comportamientos.

Los factores inducidos por el contexto organizativo motivan la participación de los empleados en el comportamiento proambiental voluntario en el trabajo relacionado con la organización (Wpeb ítems 1, 3, 5 y 10). Nuestros hallazgos muestran que los antecedentes del submodelo uno predicen el comportamiento en línea con la definición

OCB-O o "comportamientos que benefician a la organización en general" (Williams & Anderson, 1991, p. 601).

Por otro lado, los factores individuales motivan la participación del empleado en el comportamiento proambiental voluntario en el trabajo relacionado con ayudar a otros (Wpeb ítems 6, 7 y 8). En este caso, los resultados muestran que los antecedentes individuales predicen comportamientos en línea con la definición de OCB-I o "comportamientos que benefician inmediatamente a individuos específicos e indirectamente a través de este medio contribuyen a la organización" (Williams & Anderson, 1991, p. 602).

Aunque este resultado puede parecer previsible, la investigación previa no ha prestado atención a esta clasificación del comportamiento voluntario proambiental en el trabajo. Nuestros resultados muestran que, además de distinguir entre diferentes categorías y subcategorías de comportamiento proambiental voluntario, teniendo en cuenta el tipo específico de comportamiento (por ejemplo, conservar, evitar daños, transformar, influir en los demás o tomar la iniciativa), es interesante clasificarlos teniendo en cuenta el objetivo del comportamiento, es decir, si el comportamiento proambiental beneficia a la organización en general o al individuo, ya que los antecedentes pueden variar según el objetivo.

Por lo tanto, los resultados muestran otra posible clasificación relevante de comportamiento proambiental voluntario en el trabajo: comportamiento proambiental voluntario en el trabajo hacia la organización (WPEB-O u OCBE-O, usando terminología OCB) y comportamiento proambiental voluntario en el trabajo hacia el individuo (WPEB-I u OCBE-I).

Este hallazgo también respalda la clasificación seguida en este estudio, que agrupa los antecedentes del comportamiento proambiental voluntario en el trabajo en determinantes inducidos por el contexto organizativo e individuales. También está en línea con la idea de que diferentes tipos de comportamientos proambientales son inducidos por diferentes factores motivacionales (Robertson & Barling, 2017). Por lo tanto, cuando se mide el comportamiento proambiental voluntario en el trabajo, es interesante considerar escalas que al menos midan estas dos categorías de comportamientos.

El hecho de que el modelo propuesto se haya probado utilizando una muestra de empleados de banca en dos países en desarrollo (Ecuador y Kazajstán) llena un vacío con respecto a investigaciones previas, ya que la mayoría de la literatura previa en el campo se centró principalmente en países desarrollados. Adicionalmente, investigaciones anteriores en este tema o similares no habían prestado mucha atención a estos dos países.

Los resultados obtenidos indican que los antecedentes sugeridos en los estudios realizados en Europa Occidental y América del Norte son relevantes en los países considerados en este estudio. Sin embargo, los resultados del análisis de control de país muestran que el país de los encuestados desempeña un papel en la explicación del comportamiento proambiental voluntario en el trabajo en ambos submodelos.

Los resultados obtenidos muestran que los encuestados de Kazajstán fueron más proambientales con respecto al comportamiento cuyo objetivo es la organización (comportamiento proambiental voluntario en el trabajo para la organización). Por su parte, los encuestados ecuatorianos demostraron una mayor participación en el comportamiento proambiental relacionado con ayudar a sus compañeros (comportamiento proambiental voluntario en el trabajo para el individuo).

Las diferencias culturales entre ambos países podrían explicar estos resultados. Aplicando el análisis de la clasificación cultural de Hofstede, se puede decir que con respecto a los valores culturales, a pesar de que ambos países están orientados a la jerarquía, Kazajstán tiene una puntuación más alta que Ecuador. Por lo tanto, en Kazajstán, el conservadurismo social y la importancia de la jerarquía en la sociedad pueden alentar a las personas a participar en actividades relacionadas con la tarea para obtener la posibilidad de recompensas futuras o reconocimiento de los miembros del entorno laboral que se encuentran en posiciones más poderosas. Además, la mejora del rendimiento puede dar la oportunidad de avanzar al trabajador en una escala profesional, lo que mejorará su posición en la jerarquía.

En Ecuador la imagen es un poco diferente. Con respecto a los valores culturales, aunque ambos países son colectivistas, los ecuatorianos son claramente más colectivistas que los kazajos. Por lo tanto, dado que ser miembro de una determinada comunidad es muy importante, el grado de interdependencia es muy alto entre los miembros de la sociedad. De esta manera, los ecuatorianos pueden aceptar el entorno laboral como una comunidad donde los individuos forman una especie de familia. Ayudar a los miembros de una comunidad en este caso puede ser una práctica común. Esta idea ha sido propuesta por Kabasakal et al. (2011, p. 2708), quienes afirman que “en base a modelos cognitivos de motivación laboral, [...] un individuo con valores colectivistas se involucrará en comportamientos más prosociales en el trabajo con el fin de mantener una representación positiva de su ser interdependiente en comparación con aquellos con una orientación más individualista”.

Los resultados obtenidos también subrayan la importancia de diseñar escalas para medir el comportamiento proambiental voluntario en el trabajo que considere diferentes tipos de comportamiento en diferentes niveles (organizativo o individual), ya que los individuos dispuestos a realizar un tipo de comportamiento pueden no participar en otro tipo de comportamiento (Robertson & Barling, 2017). En este estudio, los ecuatorianos parecen estar más interesados en participar en WPEB-I, mientras que los encuestados kazajos demostraron una mayor participación en WPEB-O.

La consideración de dos países en desarrollo también sugiere algunas reflexiones con respecto a las escalas existentes para medir el comportamiento proambiental en el trabajo. Se necesita cierta infraestructura específica para permitir que los empleados y ciudadanos participen en algunos comportamientos ambientales. Algunas escalas parecen suponer que la infraestructura está disponible en todos los países. Por ejemplo, la interesante escala propuesta por Robertson & Barling (2017) incluye elementos como "En el trabajo, realizo compostaje siempre que sea posible" o "En el trabajo,

reciclo siempre que sea posible". Sin embargo, muchos países y empresas ubicadas en estos países carecen de infraestructuras básicas para permitir a los empleados y ciudadanos participar en este tipo de comportamiento. Por ejemplo, en Astana, la capital de Kazajstán, no había instalaciones para separar la basura o reciclar papel en la ciudad antes de 2017, ofreciendo centros de recogida de papel solo en las afueras de la ciudad. La disponibilidad de instalaciones adecuadas puede diferir en las ciudades y empresas del mismo país, lo que afecta directamente la posibilidad de participar en un comportamiento proambiental.

6.4. Implicaciones del estudio

Este estudio tiene algunas implicaciones para los gestores de empresas y organizaciones.

El papel del compromiso de los empleados es crucial para las organizaciones. La literatura previa ha subrayado repetidamente los resultados positivos del compromiso de los empleados con los resultados relacionados con el desempeño financiero de las organizaciones (Karsh et al., 2005; Meyer & Allen, 1997). Además de eso, nuestros hallazgos subrayan la importancia del compromiso afectivo de los empleados para mejorar los comportamientos *extra-role*, promoviendo la participación de los empleados en comportamientos proambientales voluntarios en el trabajo, lo que también contribuye a los resultados ambientales y la sostenibilidad ambiental de la empresa.

Del mismo modo, algunas actitudes y percepciones positivas de los empleados, como las relacionadas con la satisfacción en el trabajo, el apoyo organizativo percibido, las percepciones de apoyo organizativo a la familia y la confianza, se asocian comúnmente con beneficios que influyen en el desempeño económico-financiero de la empresa (por ejemplo, mayor productividad) o beneficios para el empleado (por ejemplo, bienestar de los empleados) (Aguilera et al., 2007; Bourg & Segal, 1999; Savery, 1996; Schwab & Cummings, 1970; Wayne et al., 2013). Nuestros hallazgos muestran que estas actitudes y percepciones también influyen en la participación de los empleados en comportamientos proambientales voluntarios en el trabajo a través del compromiso afectivo, lo que también contribuye a la sostenibilidad ambiental del negocio.

Por lo tanto, además de producir efectos positivos en los resultados económicos de la empresa y los beneficios para la vida del empleado, las políticas tradicionales que afectan positivamente a la satisfacción en el trabajo y al compromiso afectivo del empleado o mejoran las percepciones de los empleados sobre el apoyo organizativo, influyen también en el comportamiento proambiental voluntario en el trabajo y los gestores deben ser conscientes de eso.

Por ejemplo, las iniciativas de las empresas para apoyar el ámbito familiar también pueden tener un efecto positivo en la participación de los empleados en los comportamientos proambientales en el trabajo, lo que refuerza la importancia de estas políticas para conseguir organizaciones más sostenibles.

Además, algunos empleados serán más proclives a desarrollar comportamientos proambientales cuando se sientan apoyados por su organización y, en particular, cuando perciban un apoyo de la organización al medio ambiente. Este estudio confirma la importancia directa del POES en el desarrollo de comportamientos proambientales voluntarios en el trabajo. Las organizaciones que deseen reducir su consumo de recursos naturales y contribuir a las mejoras de la huella ambiental pueden usar sus recursos para brindar a los empleados apoyo que indique que sus esfuerzos ambientales serán valorados (Lamm et al., 2013).

Algunos de los ejemplos de este apoyo pueden ser: el establecimiento de instalaciones de reciclaje bien marcadas en lugares adecuados en edificios organizativos o la inclusión de utensilios de un solo uso hechos de materiales reciclables como el bambú en las cafeterías organizativas. Asimismo, las organizaciones pueden tener un boletín periódico (Temminck et al., 2015) donde se publicarán los esfuerzos de los empleados hacia el medio ambiente de forma voluntaria, lo que contribuirá al reconocimiento general del trabajo adicional de los empleados que se suma a la sostenibilidad de la organización.

Con el objetivo de "guiar" a los empleados en su selección de comportamientos *extra-role*, se debe subrayar la importancia de la comunicación y la fluidez de la información entre los departamentos de la organización con respecto a la visión y las metas ambientales de la misma (Hart, 1995). La existencia y disponibilidad de políticas ambientales se puede transferir a los empleados a través de gerentes, boletines, reuniones y conferencias. La disponibilidad de pantallas con información continua sobre la actividad ambiental de la organización en lugares de reunión masivos de empleados, como cafeterías o espacios de descanso, también podría ser una opción.

Para los empleados recién contratados, la organización puede introducir programas de inducción y orientación ambientales como parte de la orientación habitual, lo que familiarizará a los nuevos empleados con la cultura y los valores ecológicos de la organización, ayudando a los recién llegados a asimilarlos. En el futuro, esas prácticas pueden facilitar la voluntad de participar en el comportamiento proambiental voluntario en el trabajo.

Además, como el comportamiento de los compañeros afecta positivamente los comportamientos similares de los empleados, la importancia de compartir experiencias en el aprendizaje heurístico (es decir, el aprendizaje por descubrimiento) y el aprendizaje mediante la observación entre los empleados pueden desempeñar un papel clave en el aumento de la participación de los empleados en el comportamiento proambiental voluntario (Bandura, 2008; Zientara & Zamojska, 2018).

En este sentido, las organizaciones pueden introducir juegos grupales en los que los empleados pueden no solo aumentar su conocimiento individual sobre temas ambientales, sino también mejorar la comunicación personal con sus compañeros de trabajo y aprender valiosas soluciones de problemas particulares de sus compañeros. Los empleados pueden observar el comportamiento de sus compañeros que resolvieron con éxito los juegos durante las actividades grupales y aprender su comportamiento

posterior dirigido a mejorar el uso de los recursos, por ejemplo. Del mismo modo, trasladar a los empleados que no están muy preocupados por el medio ambiente a grupos que incluyen empleados que participan regularmente en comportamientos proambientales puede tener una influencia positiva en los primeros.

Dado que el aprendizaje por observación de los compañeros es una parte importante en la promoción del comportamiento proambiental voluntario de los empleados en el trabajo, las organizaciones que deseen ahorrar recursos también pueden considerar atraer empleados potenciales con fuertes valores proambientales. Los empleados de la organización pueden aprender el comportamiento proambiental observando el comportamiento de estos recién llegados. En este sentido, la imagen corporativa responsable con el medio ambiente debería mejorarse mejorando la estrategia socialmente responsable de la empresa (McWilliams & Siegel, 2010), lo que contribuirá a la atracción de nuevo personal con fuertes valores proambientales.

Los resultados obtenidos también han demostrado que la posesión de algunos factores individuales como los valores y actitudes con respecto al medio ambiente y la pasión por el medio ambiente armoniosa junto con los hábitos de comportamientos ecológicos en la vida privada pueden ser aspectos importantes cuando se promueve el comportamiento proambiental voluntario en el trabajo. Incluso si las organizaciones tienen menos influencia en los antecedentes individuales del comportamiento proambiental voluntario de los empleados, se pueden considerar algunas acciones.

Los resultados obtenidos respaldan la idea de que el conocimiento sobre temas ambientales crea conciencia, lo que conduce a la formación de valores y actitudes, pasión por el medio ambiente y, finalmente, al desarrollo de un comportamiento proambiental voluntario.

El papel de la pasión por el medio ambiente armoniosa en la promoción del comportamiento proambiental voluntario de los empleados en el trabajo parece una opción interesante a considerar con el objetivo de aumentar la participación de los empleados en dicho comportamiento. Algunas intervenciones organizativas para aumentar el nivel de pasión pueden contribuir a alcanzar este objetivo.

La pasión armoniosa está muy relacionada con el apoyo a la autonomía y la orientación de la autonomía a la creatividad laboral, de modo que el individuo que posee una pasión armoniosa tiende a ser más creativo y autónomo en el trabajo (Liu et. al., 2011). Con esto en mente, las organizaciones pueden cultivar entornos de trabajo donde se cultiva una pasión armoniosa mediante la modificación de algunas prácticas y políticas existentes. Algunas prácticas de reclutamiento y selección pueden incluir la contratación prioritaria de personas con altos niveles de orientación de autonomía, porque estos están más dispuestos a desarrollar una pasión armoniosa hacia el trabajo. Además, las organizaciones pueden crear un clima proambiental (Griffiths & Russell, 2008) que aliente a los empleados a participar en actividades proambientales, convirtiendo la pasión armoniosa en pasión por el medio ambiente armoniosa.

También, se demostró que la pasión por el medio ambiente armoniosa se desarrolla sobre la base de la posesión de los valores y actitudes con respecto al medio ambiente.

Esos, a su vez, se desarrollan mediante la adquisición de conocimiento medioambiental. El papel de la educación y formación medioambiental en la promoción de comportamientos ecológicos se ha destacado en varios estudios, que afirman que tales herramientas pueden aumentar la conciencia de los empleados sobre los problemas ambientales que enfrenta su organización y proporcionar el conocimiento necesario para considerar su posible contribución para resolver esos problemas (Cook & Seith, 1992; Saunders & McGovern, 1993). Por lo tanto, podrían introducirse algunas prácticas como la formación ambiental especializada de forma voluntaria. De la misma manera, algunos expertos ampliamente conocidos en temas ambientales pueden ser invitados a la organización con el objetivo de dar charlas sobre temas ambientales y la importancia de posibles contribuciones individuales para mejorar la situación del medio ambiente en general.

Se demostró que el papel del comportamiento proambiental voluntario en la vida privada es de particular importancia para activar los mismos patrones de comportamiento en el trabajo. Sin embargo, como algunas investigaciones muestran, el obstáculo para practicar dicho comportamiento puede ser la ausencia de instalaciones adecuadas para realizar las mismas actividades en el trabajo (McDonald, 2011), como los puntos de reciclaje, por ejemplo. Las organizaciones pueden proporcionar tales instalaciones para la contribución de los empleados a la *ecologización* organizativa.

La participación de los empleados en comportamientos proambientales en la vida privada puede inducirse promoviendo que los empleados participen en la creación y evaluación de las actividades ambientales de la empresa (Muster & Schrader, 2011; Ramus, 2002). El impulso para promover que los empleados realicen tales actividades puede provenir de un sistema de recompensas adecuado, que, por ejemplo, premie a aquellos que proporcionen las mejores ideas sobre la mejora de la *ecologización* organizativa. Ciertos empleados con un conocimiento sobresaliente sobre temas ambientales pueden ser motivados por la organización para compartir sus experiencias y/o trabajar en proyectos ambientales que realizan en la vida privada. La motivación puede venir a través del valor que la organización puede mostrar para tal comportamiento. Para completar tales tareas, se puede otorgar algo de tiempo libre del trabajo principal para estos empleados (Wehrmeyer, 1996).

6.5. Limitaciones y futuras líneas de investigación

Los resultados del estudio actual deben interpretarse en el contexto de sus limitaciones.

Primero, tamaño reducido de la muestra de empleados de Kazajstán (107 participantes) impide testar el modelo en Ecuador y Kazajstán por separado. Los investigadores recomiendan tener al menos 200 casos en total para poder medir modelos complejos (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014; Kline, 2011). Aunque la muestra ecuatoriana es lo suficientemente grande, el tamaño de la muestra de empleados de

Kazajstán no es suficiente. Sin embargo, el país de los encuestados se incluyó como variable de control para considerar el papel del país en este estudio.

Investigaciones futuras podrían considerar un análisis separado para cada país. Este análisis puede ser útil para identificar matices ocultos no vistos en el estudio actual. También, se pueden incluir más países en la investigación. Por ejemplo, España, donde vive la autora de esta tesis, sería una opción interesante para esta propuesta.

El análisis de la influencia moderadora del país de los encuestados en los submodelos analizados puede ser una opción interesante para evaluar la posible influencia del contexto nacional en las relaciones estudiadas (significado, magnitud e importancia).

Segundo, la internacionalidad y la universalidad de los actores del sistema bancario deben considerarse al comprender los resultados del estudio. Como muchos bancos son compañías multinacionales, los empleados de banca de los países en desarrollo podrían tener un comportamiento diferente con respecto al medio ambiente que empleados de otros sectores. Sin embargo, la falta de estudios similares para el sector bancario nos animó a examinar el comportamiento de los empleados de banca.

Además, la investigación se realizó en las capitales de los países estudiados donde muchas personas no están en contacto directo con la naturaleza. Investigaciones futuras pueden replicar el modelo propuesto en el estudio actual en otros entornos, como por ejemplo ciudades más pequeñas porque la literatura previa (Collado, Corraliza, Staats, & Ruiz, 2015) ha subrayado que el contacto directo con la naturaleza es un determinante relevante para aumentar la participación individual en los comportamientos proambientales, dependiendo del tipo y la frecuencia del contacto.

Tercero, la falta de escalas consolidadas para comportamiento proambiental voluntario en el trabajo debe ser tomada en cuenta. El comportamiento proambiental voluntario en el trabajo es un constructo relativamente nuevo y no existe un consenso claro sobre cómo debe medirse.

Debido a la relativa novedad de este constructo, los ítems utilizados para medir el comportamiento proambiental voluntario en el trabajo y el comportamiento proambiental voluntario en la vida privada proceden de diferentes estudios. Algunas escalas interesantes (por ejemplo, Robertson & Barling, 2017) sobre el tema se publicaron después de la construcción de la encuesta empleada en 2016. Esto imposibilitó tener en cuenta esta propuesta.

La escala utilizada incluye 10 ítems que miden diferentes tipos de comportamiento: eco-ayuda, compromiso eco-cívico y eco-iniciativas considerando la clasificación de Boiral & Paillé (2012). Sin embargo, la escala utilizada no incluye elementos relacionados con la categoría de compromiso eco-cívico relacionados con el autodesarrollo, presentes en la clasificación OCB. Considerando la tipología de Ones & Dilchert (2012), Ones et al. (2018), la escala utilizada incluye elementos relacionados con los siguientes tipos de comportamiento proambiental: influir en los demás, tomar la iniciativa, transformar y evitar daños, sin medir el comportamiento de la conservación.

Los ítems de escala que miden los comportamientos de la conservación fueron excluidos de nuestra investigación por algunas razones.

En primer lugar, como se mencionó, muy pocos bancos en ambos países estudiados han adaptado políticas y prácticas ecológicas, lo que llevó a excluir ítems relacionados con el compromiso eco-cívico presentes en la clasificación OCB de autodesarrollo. Los elementos como, por ejemplo, "Cuando hojeo el periódico, a menudo leo artículos que parecen abordar los impactos ambientales de mi empresa e industria" o "Me mantengo informado de las iniciativas ambientales de mi empresa" (Fryxell & Lo, 2003) no tienen sentido ya que podría no haber información disponible sobre dicha actividad en los bancos de los países estudiados, ni prácticas relacionadas con el entorno aplicado al proceso de creación de negocios bancarios.

En segundo lugar, como se mencionó anteriormente, las instalaciones de reciclaje se pusieron a disposición recientemente para los ciudadanos kazajos. Sin embargo, la disponibilidad de tales instalaciones en el trabajo es una opción poco común en muchas empresas, incluidas las instituciones financieras. Este punto podría dar lugar a respuestas negativas cuando se le pregunta sobre el reciclaje en el trabajo, lo que podría subestimar artificialmente los resultados sobre el respeto al medio ambiente en el trabajo.

En tercer lugar, al incluir más preguntas, la gran extensión del cuestionario podría haber disminuido la tasa de respuesta del estudio, lo que podría disminuir el número de cuestionarios recogido.

A pesar de las limitaciones señaladas, la escala diseñada para medir el comportamiento proambiental voluntario en el trabajo sigue siendo lo suficientemente extensa y acorde al número de ítems utilizados en trabajos anteriores (por ejemplo, Boiral & Paillé, 2012; Fryxell & Lo, 2003).

La escala utilizada también incluye un ítem que no fue validado previamente. Este ítem se incluyó porque consideramos que está relacionado con un comportamiento relevante para los empleados del banco, ya que está relacionado con actividades del empleado de banca que trabaja con los clientes fuera de la oficina. Futuras investigaciones deberían validar este ítem, encontrando también una forma factible de completar la escala incluyendo todos los tipos de comportamiento proambiental voluntario de los empleados propuestos por Ones & Dilchert (2012) y Ones et al. (2018) y tipos ofrecidos por Boiral & Paillé (2012).

Trabajar con empleados de bancos de países que no hablan inglés también agrega complejidad a la elaboración de escalas. El cuestionario desarrollado incluyó ítems tomados de literatura previa escrita en inglés. La traducción posterior al español y al ruso fue realizada por la autora de la tesis, adaptando los ítems a estos idiomas. Aunque la traducción fue revisada por dos hablantes nativos antes de entregar los cuestionarios, la traducción doble ciega podría ayudar a mejorar la calidad de la traducción.

Los encuestados probablemente malinterpretaron algunas escalas que incluían ítems codificados inversamente y el número de ítems de esas escalas se redujo durante el

análisis empírico (por ejemplo, la escala FSOP). La investigación futura puede anticipar errores de malentendido y la eliminación de algunos elementos como sucedió en la investigación actual, particularmente con la escala FSOP.

Otra limitación surge del hecho de que el enfoque metodológico utilizado para analizar las diferentes relaciones (directas, indirectas y moderadoras) lleva a cabo este análisis por separado, considerando también una relación funcional lineal. De esta manera, la investigación futura debería abordar el análisis conjunto de los efectos directos, indirectos y moderadores, utilizando propuestas metodológicas como las de Hayes (2017), que podrían enriquecer el análisis de los efectos mencionados.

Para la variable de normas descriptivas, solo se utilizó la suma del número de normas presentes en el individuo. La investigación futura debería usar escalas que no solo midan la amplitud de la variable, sino también su tipología.

Algunos autores (Gifford & Sussman, 2012) argumentan que aunque los valores y las actitudes se pueden confundir entre sí, puede haber algunas diferencias sutiles entre ellos. Futuras investigaciones pueden dividir la variable de los valores y actitudes con respecto al medio ambiente en dos variables diferentes.

Debido a la naturaleza transversal de los datos recopilados para probar el modelo propuesto, el estudio actual no analizó la existencia de las relaciones de causalidad entre las variables estudiadas. Investigaciones futuras pueden centrarse en el desarrollo de estudios longitudinales para evaluar las relaciones de causalidad en los dos submodelos estudiados.

Finalmente, los constructos utilizados en el estudio realizado son autoinformados, y los datos han sido recopilados durante el mismo período con el mismo cuestionario que utiliza un diseño de investigación transversal. Por lo tanto, los sesgos de método común y deseabilidad social podrían ser un problema (Ortiz, Salgado, & Cázares, 2017; Podsakoff & Organ, 1986).

Para evaluar la existencia de sesgo de método común, se realizó la prueba de un factor de Harman (Harman one-factor test) (Podsakoff & Organ, 1986), que ha demostrado que la presencia de una varianza de método común era poco probable que fuera significativa. Siguiendo a Podsakoff et al. (2003) se reestimó un nuevo modelo con todas las variables observadas cargando en un factor, y los resultados fueron inaceptables ($\chi^2 = 5996.046$; $df = 740$; RMSEA = 0.147). Ambos resultados sugieren que el sesgo de método común no es un problema en este estudio.

Además, para reducir la posibilidad de sesgo de deseabilidad social, los cuestionarios fueron anónimos y se autoadministraron claramente indicando que todas las respuestas serían a). utilizadas solo con fines académicos; b). confidenciales; c). recopiladas conjuntamente y analizadas como un grupo (Grimm, 2010).

Aunque no consideramos los siguientes puntos como limitaciones del trabajo actual, esta investigación puede enriquecerse al considerar los siguientes puntos.

En primer lugar, algunos investigadores sostienen que no solo se deben estudiar los comportamientos proambientales, sino también los comportamientos anti-ambientales,

es decir, los que perjudican y dañan medio ambiente, incluido el comportamiento anti-ambiental de forma voluntaria de los empleados en el trabajo (Ones et al., 2018). Investigaciones futuras pueden centrarse en este aspecto, considerando los antecedentes de tal comportamiento negativo. Este punto es de particular importancia porque el comportamiento dañino hacia el medio ambiente afecta el desempeño ambiental general de los empleados, de modo que “tanto promover comportamientos ecológicos como inhibir comportamientos no ecológicos es necesario para un desempeño ambiental efectivo” (Ones et al., 2018, p. 15). En este caso, el reconocimiento de antecedentes de comportamientos no ecológicos puede ser útil para su prevención.

En segundo lugar, el presente modelo de investigación podría ampliarse mediante la inclusión de otros antecedentes. Esta investigación no analiza el papel de los factores de personalidad, algunos factores relacionados con la proactividad de los empleados y el papel de las políticas y prácticas de gestión de recursos humanos verdes hacia el medio ambiente. En este caso particular, la personalidad de los individuos (factores *Big Five*) puede desempeñar un papel clave (Robertson & Barling, 2017), mientras que incluir variables de personalidad para futuras investigaciones pueden ser importante.

En relación con la personalidad proactiva, la proactividad del individuo puede desempeñar un papel relevante, particularmente, para la puesta en marcha de eco-iniciativas dentro del comportamiento proambiental voluntario en el trabajo. Sería interesante observar si los factores relacionados con la personalidad proactiva conducen a un comportamiento proambiental voluntario.

Adicionalmente, estudios futuros pueden analizar el efecto de las prácticas de la gestión de recursos humanos verdes en el comportamiento proambiental voluntario en las organizaciones. Hemos destacado que la gestión de recursos humanos verdes y otras políticas y prácticas hacia el medio ambiente pueden influir en el conjunto de determinantes inducidos por el contexto organizativo e individuales, influyendo indirectamente en el comportamiento proambiental voluntario. El análisis de la influencia directa de las políticas y prácticas de gestión de recursos humanos verdes en el comportamiento proambiental voluntario también es una posibilidad que debería considerarse en futuros estudios.

Esas prácticas de gestión de recursos humanos verde pueden incluir la contratación de personal orientado a obtener una producción más limpia, además de otros trabajos ambientales, como la realización de auditorías ambientales de la empresa (Arulrajah et al., 2015), incluyendo tareas para aumentar la alfabetización ecológica y la experiencia ambiental entre los empleados en relación a los objetivos medioambientales de la organización (Roy & Thérin, 2008) y las normas técnicas y los requisitos reglamentarios (Jackson et al., 2011).

Sin embargo, muy pocas compañías han implementado prácticas de gestión de recursos humanos verdes, particularmente en países en desarrollo. Especialmente, algunos bancos en los países donde se realiza nuestra investigación no brindan información sobre las prácticas destinadas a promover la *ecologización* organizativa al

nivel de comportamiento individual de los empleados. En consecuencia, los resultados fiables y factibles de la influencia de las políticas y prácticas ecológicas son difíciles de examinar en algunos países.

Algunos autores (Francoeur et al., 2019) proponen que investigaciones futuras sobre los comportamientos dentro del marco de gestión de recursos humanos verdes, como el comportamiento proambiental voluntario en el trabajo, deberían incluir comportamientos verdes *in-role* para tener una imagen completa del efecto de esos tipos de comportamiento en *ecologización* organizativa. Investigaciones futuras podrían agregar comportamientos ecológicos *in-role* al modelo propuesto.

Algunos investigadores (Francoeur et al., 2019; Robertson & Barling, 2017) también señalan la importancia de poder medir la frecuencia del comportamiento proambiental voluntario entre los empleados, que no es observable sin un sistema de medición completo. Según esos autores, los empleados pueden participar en varios tipos de comportamientos proambientales voluntarios solo una vez mientras que otros pueden practicar, por ejemplo, el reciclaje a diario. Las escalas existentes no se desarrollan teniendo en cuenta la frecuencia de la participación en comportamientos ecológicos, que es necesaria para reflejar la imagen completa con respecto al comportamiento proambiental voluntario.

Igualmente, de acuerdo con la literatura previa sobre las interacciones entre la vida privada y el trabajo, la relación entre ambos dominios puede ser interdependiente (Edwards & Rothbard, 2000; Kanter, 1977; Lambert, 1990; Muster & Schrader, 2011), existiendo influencia entre ambos dominios (Edwards & Rothbard, 2000). Hemos visto que el comportamiento proambiental voluntario en la vida privada influye positivamente en el comportamiento proambiental voluntario en el trabajo. La relación inversa en la que el comportamiento voluntario proambiental en el trabajo podría influir en el comportamiento proambiental voluntario en el hogar podría estudiarse en el futuro.

Finalmente, podrían desarrollarse diferentes escalas dependiendo del tipo de comportamiento analizado (organizativo e individual). Considerando el tipo de antecedentes analizados en cada uno de los dos submodelos propuestos (respectivamente, variables del contexto organizativo y variables del contexto individual), investigaciones futuras podrían también utilizar metodologías multinivel para evaluar la posible relación entre ambos submodelos.



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LIST OF FIGURES

Modelo conceptual propuesto.....	23
Figure 1.1. GDP per capita and environmental footprint (EF) per capita (gha/person) of some countries for 2016 (countries marked with environmental footprint of 1,75 may have EF less than that number)	54
Figure 1.2. Three Visual Representations of Sustainable Development: Pillars, Circles, Interlocking Circles.....	58
Figure 1.3. Indicators of sustainable development.....	64
Figure 1.4. Hofstede country comparison	85
Figure 2.1. A perspective on business strategy and human resource strategy interdependence.....	100
Figure 1.2 (fragment, repeated from Chapter I). Three Visual Representations of Sustainable Development: Pillars, Circles, Interlocking Circles.....	126
Figure 3.1. Factors affecting the workplace pro-environmental behavior of employees.....	135
Figure 3.2. Classification of types of pro-environmental behavior	137
Figure 4.1. Research model	160
Figure 4.2. Organizational determinants.....	180
Figure 4.3. Individual factors.....	198
Figure 5.1. Conceptual Model Summary: Graphical Description.....	232
Figure 5.2. Conceptual Sub-model One: Graphical Description.....	232
Figure 5.3. Illustration of moderating effects (sub-model one): EAC x POES	237
Figure 5.4. Model fit summary and parameters estimates (sub-model one): graphical description	239
Figure 5.5. Conceptual Sub-model Two: Graphical Description	239
Figure 5.6. Model fit summary and parameters estimates (sub-model two): graphical description	244



LIST OF TABLES

Table 1.1. Definitions of sustainable development.....	57
Table 1.2. Current Managerial Theories: Environmental Sustainability Connections and Omissions	74
Table 1.3. Some development indicators by country groups	81
Table 1.4. Statistics of Kazakhstan and Ecuador	82
Table 1.5. Banking sector of Kazakhstan and Ecuador. The number of banks.....	86
Table 2.1. Definition of Human Resources.....	90
Table 2.2. Definitions of Human Resource Management.....	91
Table 2.3. The Typology of HR Research with Examples.....	106
Table 3.1. Definitions of sustainable HRM.....	116
Table 3.2. Definitions of Green HRM.....	129
Table 3.3. Green policies, practices and procedures	132
Table 3.4. Distinctions between voluntary and obliged pro-environmental behavior at work	141
Table 3.5. Distinctions between OCB and OCBE categories and their possible applications	145
Table 3.6. Classification of the green behaviors at work.....	149
Table 4.1. Classification of the studied determinants of PEB at work.....	154
Table 4.2. Some research gaps in prior literature.....	156
Table 5.1. Sample description.....	217
Table 5.2. Measurement of constructs (antecedents, mediators and moderators): dimensions, sources of scales and items.....	219
Table 5.3. Measurement of construct (dependent variable: voluntary PEB at work);dimensions, sources of scales, items and classification of the items.....	221
Table 5.4. Frequencies of sample demographics.....	224
Table 5.5. Tenure descriptives (years).....	224
Table 5.6. Univariate Analysis: Job satisfaction	225
Table 5.7. Univariate Analysis: Perceived organizational support.....	225
Table 5.8. Univariate Analysis: Family supportive organizational perceptions	225
Table 5.9. Univariate Analysis: Trust in supervisors.....	226
Table 5.10. Univariate Analysis: Employee affective commitment.....	226
Table 5.11. Univariate Analysis: Colleagues' voluntary PEB at work.....	227
Table 5.12. Univariate Analysis: Perceived organizational environmental support.....	227
Table 5.13. Univariate Analysis: Personal environmental awareness.....	228
Table 5.14. Univariate Analysis: Environmental concern	228
Table 5.15. Univariate Analysis: Descriptive norms.....	229
Table 5.16. Univariate Analysis: Environmental values and attitudes.....	229
Table 5.17. Univariate Analysis: Harmonious environmental passion	230
Table 5.18. Univariate Analysis: Private life voluntary PEB	230
Table 5.19. Univariate Analysis: Voluntary PEB at work.....	231

Table 5.20. Confirmatory Factor Analysis (sub-model one): summary measurement results, validity and reliability.....	233
Table 5.21. Confirmatory Factor Analysis (sub-model one): Correlations between constructs and Average Variance Extracted (AVE)	235
Table 5.22. Structural Equation Modelling (sub-model one): model fit summary and parameters estimates (model with moderating effects).....	236
Table 5.23. Indirect effects (sub-model one).....	238
Table 5.24. Confirmatory Factor Analysis (sub-model two): summary measurement results, validity and reliability.....	240
Table 5.25. Confirmatory Factor Analysis (sub-model two): Correlations between constructs and Average Variance Extracted (AVE)	241
Table 5.26. Structural Equation Modelling (sub-model two): model fit summary and parameters estimates (model with moderating effects).....	242
Table 5.27. Indirect effects (sub-model two).....	243
Table 7.1. Sustainable development indicators at a business level.....	343
Table 7.2. Definitions of Corporate Social Responsibility.....	349
Table 7.3. OCB and OCBE dimensions with proposed questionnaire items.	353
Table 7.4. Classification of the studied organizational determinants of PEB at work	356
Table 7.4a. Organizational Behavior Research	356
Table 7.4b. Psychological Research	358
Table 7.4c. OCBE Research.....	360
Table 7.4d. Green HRM Research.....	362
Table 7.4e. Proactivity Research.....	363
Table 7.4f. OCB Research	364

7. ANNEX

7.1. Table of sustainable development indicators

Table 7.1. Sustainable development indicators at a business level

SOCIAL DIMENSION	ENVIRONMENTAL DIMENSION	ECONOMIC DIMENSION
<p>GRI (2018, 2000-2011):</p> <p>Employment (new employee hires and employee turnover; benefits provided to full-time employees that are not provided to temporary or part-time employees; parental leave).</p> <p>Labor/management relations (minimum notice periods regarding operational changes).</p> <p>Occupational health and safety (occupational health and safety management system; hazard identification, risk assessment, and incident investigation; occupational health services; worker participation, consultation, and communication on occupational health and safety; worker training on occupational health and safety promotion of worker health; prevention and mitigation of occupational health and safety impacts directly linked by business relationships; workers covered by an occupational health and safety management system; work-related injuries; work-related ill health).</p> <p>Training and education (average hours of training per year per employee; programs for upgrading employee skills and transition assistance programs; percentage of employees receiving regular performance and career development</p>	<p>GRI (2018, 2000-2011):</p> <p>Materials (materials used; recycled input materials used; reclaimed products and their packaging materials).</p> <p>Energy (energy consumption within and outside of the organization; energy intensity; reduction of energy consumption; reductions in energy requirements of products and services).</p> <p>Water and effluents (interactions with water as shared resource; management of water discharge-related impacts; water discharge, withdrawal and consumption).</p> <p>Biodiversity (operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas; significant impacts of activities, products, and services on biodiversity; habitats protected or restored;</p> <p>IUCN Red List species and national conservation list species with habitats in areas affected by operations).</p> <p>Emissions (GHG, ODS, NOx, SOx emissions).</p> <p>Effluents and waste (water discharge by quality and destination; waste by type and disposal method; significant spills; transport of hazardous waste; water bodies affected by water</p>	<p>GRI (2018, 2000-2011):</p> <p>Economic performance (including direct economic value generated (revenues), distributed (employee wages, payments to government) and retained; financial implications and other risks and opportunities due to the climate change; financial assistance received from government; defined benefit plan obligations and other retirement plans).</p> <p>Market presence (wage by gender; local hiring).</p> <p>Indirect economic impact (infrastructure investment; significance of indirect economic impacts of the organization).</p> <p>Procurement practices (proportion on spending on local suppliers).</p> <p>Anti-corruption (operations assessed for risks related to corruption; trainings and policies on anti-corruption; confirmed incidents of corruption and actions taken).</p> <p>Anti-competitive behavior (legal actions for anti-competitive behavior, anti-trust, and monopoly practices).</p>

<p>reviews).</p> <p>Diversity and equal opportunity (diversity of governance bodies and employees; ratio of basic salary and remuneration of women to men).</p> <p>Non-discrimination (indices of discrimination and corrective actions taken).</p> <p>Freedom of association and collective bargaining (operations and suppliers in which the right to freedom of association and collective bargaining may be at risk).</p> <p>Child labor (operations and suppliers at significant risk for incidents of child labor).</p> <p>Forced or compulsory labor (operations and suppliers at significant risk for incidents of forced or compulsory labor).</p> <p>Security practices (security personnel trained in human rights policies or procedures).</p> <p>Right of indigenous peoples (incidents of violations involving rights of indigenous peoples).</p> <p>Human rights assessment (operations that have been subject to human rights reviews or impact assessments; employee training on human rights policies or procedures; significant investment agreements and contracts that include human rights clauses or that underwent human rights screening).</p> <p>Local communities (operations with local community engagement, impact assessments, and development programs; operations with significant actual and potential negative impacts on local communities).</p> <p>Supplier social assessment (new</p>	<p>discharges and/or runoff).</p> <p>Environmental compliance (non-compliance with environmental laws and regulations).</p> <p>Supplier environmental assessment (new suppliers that were screened using environmental criteria; negative environmental impacts in the supply chain and actions taken).</p>	
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<p>suppliers that were screened using social criteria; negative social impacts in the supply chain and actions taken).</p> <p>Public policy (political contributions).</p> <p>Customer health and safety (assessment of the health and safety impacts of product and service categories; incidents of non-compliance concerning the health and safety impacts of products and services).</p> <p>Marketing and labelling (requirements for product and service information and labeling; incidents of non-compliance concerning product and service information and labeling; incidents of non-compliance concerning marketing communications).</p> <p>Customer privacy (substantiated complaints concerning breaches of customer privacy and losses of customer data).</p> <p>Socioeconomic compliance (non-compliance with laws and regulations in the social and economic area).</p>		
<p>Elkington (1999):</p> <p>Employment practices (gender and ethnic ratios, pay rates, benefits, holidays, job satisfaction, freedom from discrimination)</p> <p>Community relations (contributions to community development, job creation, taxes paid, employee volunteerism)</p> <p>Supplier and customer relations (fair trading practices, number of products sources locally, child labor)</p> <p>Social impact of product (contributions of products to social welfare, equity, meeting of</p>		<p>Warhurst (2002):</p> <p>Financial performance (profitability, economic value added)</p> <p>Competitiveness (relative market share, sales growth)</p> <p>Quality of service (reliability)</p> <p>Resource utilization (productivity, resource efficiency)</p> <p>Innovation (R&D investment)</p> <p>Local economy impacts</p> <p>Taxation (contribution to tax revenues)</p>

basic human needs)		Corporate social investment (corporate philanthropic donations)
Labuschagne (2005): Internal HR (healthcare and pension benefits, employee education, retraining and family assistance, compensation), external population (the company impact on external local population where it operates), stakeholder participation (the relationship between the company and all its stakeholders internally and externally: provision of information and stakeholder empowerment), macro social performance (the company impact on the external regional and/or national population where it operates including its socio-economic and socio-environmental performance).	Labuschagne (2005): Air resources (contribution to regional air quality effects), water resources (availability of clean and safe water focusing on company impact on the water quality and quantity), land resources (company's impacts on the quantity and quality of land resources), mineral and energy resources (company's contribution to the depletion of non-renewable mineral and energy resources).	Labuschagne (2005): Financial health (e.g., internal financial stability), economic performance (value as perceived by shareholders, profitability, contribution to GDP, market share performance), potential financial benefits (national and/or international subsidies based on the environmental, social and/or technological improvements due to business initiatives), trading opportunities (vulnerability of company's trade network and risks).

Source: author's own elaboration.

7.2. Corporate social responsibility and sustainable development

As it was mentioned in the previous sections, sustainable development could be seen as a basis for corporate social responsibility (CSR) and its implementation. In other words, CSR could be considered as a representation of sustainable development in a micro-level (Ebner & Baumgartner, 2006) dealing with the application of the triple bottom line to business operations.

Some authors believe that CSR figures like a driver of the social dimension (Ebner & Baumgartner, 2006) and uses the principles of triple bottom line only if they contribute to the competitiveness of the company on the market (Carballo-Penela & Castromán-Diz, 2016), which differs it from the concept of sustainable development at a business level concept we have discussed previously.

On the other hand, some researchers use the terms CSR and sustainable development interchangeably (Ballivian, 2009), underlining that CSR is grounded on the triple bottom line principles embracing three key principles of action for the corporations: i). the obligation to think beyond about not only making profits, but also improving social and environmental conditions; ii). the obligation of being transparent and highly ethical in their business making process; iii). the obligation of being convolved in community they impact providing means for social welfare (Banerjee, 2008).

7.2.1. The concept of corporate social responsibility

The concept of CSR is very important for the business world (Babiak & Trendafilova, 2011; Cohen et al., 2012; Dahlsrud, 2008; Elkington, 1999; Saifulina & Carballo-Penela, 2017) and during decades the topic has been under the research focus (Eweje, 2015; Fifka, 2013).

European Commission proposes a modern definition of corporate social responsibility, which has the following explanation (European Commission, 2011, p. 6):

“The Commission puts forward a new definition of CSR as the responsibility of enterprises for their impacts on society. Respect for applicable legislation, and for collective agreements between social partners, is a prerequisite for meeting that responsibility. To fully meet their corporate social responsibility, enterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders, with the aim of:

- maximizing the creation of shared value for their owners/shareholders and for their other stakeholders and society at large;
- identifying, preventing and mitigating their possible adverse impacts.

The complexity of that process will depend on factors such as the size of the enterprise and the nature of its operations. For most small and medium-sized enterprises, especially microenterprises, the CSR process is likely to remain informal and intuitive. To maximize the creation of shared value, enterprises are encouraged to adopt a long-term, strategic approach to CSR, and to explore the opportunities for developing innovative products, services and business models that contribute to societal wellbeing and lead to higher quality and more productive jobs. To identify, prevent and mitigate their possible adverse impacts, large enterprises, and enterprises at particular risk of having such impacts, are encouraged to carry out risk-based due diligence, including through their supply chains.”

As we mentioned above, this means doing business and making profit while being responsible for consequences of the production process and its impact on the ecosystem of the planet and human health.

Researchers have proposed many other different definitions of CSR (some of them could be seen in Table 7.2). Dahlsrud (2008) identified thirty-seven definitions on the basis of previous research and grouped them according to five dimensions: environmental (environmental stewardship and concerns), social (relationship between society and business world), economic (financial aspects), stakeholder and voluntariness. The results of the analysis showed that, unfortunately, environmental dimension is the one that performed worse – in other words, the definitions of CSR related to the environmental pillar are less in number than the other four (Dahlsrud, 2008). The reason for that might be the following: environmental dimension is relatively new and not always included in CSR concept, but rather constructs its own concept – corporate environmental responsibility¹²⁰ (Dummett, 2006; Gunningham, 2017; Kovács, 2008).

Definitions are so many because of the variation of different characteristics of each business entity such as values, mission, vision and practical implications. What they have in common is that the definition usually includes social, economic and environmental imperatives of doing business leading to success and social consequences of such activities (Moon, 2007).

Understanding the importance of the term, the motivational and promotional drivers of CSR were deeply analyzed in literature. The companies interested in applying CSR strategies could consider various factors, organized into different blocks of influence (Núñez, 2003).

The first is environmental knowledge of the stakeholders – the sooner environmental problems are identified and understood, the sooner active measures could be taken. Then, government could establish rules and regulations to minimize environmental effects¹²¹. Those rules and regulations also depend on the presence of the country in international organizations such as European Union and CIS (Commonwealth of Independent States), for example, which establishes common rules among countries on essential global problems such as climate change, for instance.

¹²⁰ In the current research we consider corporate environmental responsibility as a third pillar of CSR, rather than a separate concept.

¹²¹ For instance, in some countries like Kazakhstan, during last decade some measures prohibiting import of cars older than 2005 (Euro 4) year of production were established. The disobey includes heavy fines on the customs check and huge taxes for usage of those cars on the territory of the countries («Правительство Республики Казахстан - Главная», n. d.).

Table 7.2. Definitions of Corporate Social Responsibility

SOURCE	DEFINITION
Ebner & Baumgartner, 2006, p.13	“The concept of SD on a corporate level is stated as Corporate Sustainability which is based on the three pillars economic, ecological and social issues, therefore, the social dimension is named CSR ”
European Commission, 2001, p.3	“A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis”
Matten & Moon, 2008, p. 405	“At the core of CSR is the idea that it reflects the social imperatives and the social consequences of business success. Thus, CSR (and its synonyms) empirically consists of clearly articulated and communicated policies and practices of corporations that reflect business responsibility for some of the wider societal good.”
McWilliams & Siegel, 2001, p. 117	Corporate social responsibility is defined “as actions that appear to further some social good, beyond the interests of the firm and that which is required by law”
van der Wiele, Kok, McKenna, & Brown, 2001, p. 287	“Corporate social responsibility is the obligation of the firm to use its resources in ways to benefit society, through committed participation as a member of society, taking into account the society at large, and improving welfare of society at large independently of direct gains of the company”
van Marrewijk, 2003, p. 102	“CSR refer to company activities - voluntary by definition - demonstrating the inclusion of social and environmental concerns in business operations and in interactions with stakeholders”

Source: author's own elaboration and Dahlsrud (2008).

Secondly, the consumers also play a key role in boosting CSR among companies by preferences in demand for products. For instance, green product preferences influences production process constraining the companies to switch on renewable energies, recycling and efficient consumption of natural resources as a technological advancement (Núñez, 2003).

Thirdly, banks and financial entities could also contribute to the promotion of CSR among companies with the provision of easier financing and funding of socially responsible companies, restricting those with severe impacts on environment and society.

Fourthly, more projects and voluntary initiatives for environmental better off could play an important role in the ‘sustabilizing’ society as a whole, including private business sector (McWilliams, Siegel, & Wright, 2006). The same is true for the social dimension of CSR. Corporations apply CSR principles in order to be more socially responsible contributing to the welfare of society (Eweje & Sakaki, 2015). Since the

concept was globally accepted, more and more unjust and illegal behaviors of companies are being declared and sued, raising public awareness on the issue.

Fifthly, employees are considered to be one of the main CSR drivers (Onkila, 2015). They are in key position to successfully implement CSR practices because of the acceptance of that particular CSR plan of action or refusal to behave in certain way (Ferreira-Cotón & Carballo-Penela, 2016).

7.2.1.1. External vs internal CSR

Corporate social responsibility involves internal and external practices (Hameed, Riaz, Arain, & Farooq, 2016; Murillo & Lozano, 2006). Internal CSR mainly deals with CSR practices that are directly related to the physical and psychological working environment of employees. It is expressed in concern for the health and well-being of employees, their training and participation in the business, equality of opportunities, work-family relationship (Al-bdour, Soh Keng Lin, & Nasruddin, 2010).

If to discuss particular activities, internal CSR includes human resource management, adaptation to change, health and safety at work, and management of environmental impacts and natural resources (European Commission, 2011).

External CSR refers to corporate socially responsible issues for local community, business partners and suppliers, customers, public authorities and NGOs representing local communities, the environment such as philanthropy, volunteerism and environmental protection (Al-bdour et al., 2010), and, human rights (European Commission, 2011).

Within the company, socially responsible practices primarily involve employees and relate to issues such as investing in human capital, health and safety, and managing change, while environmentally responsible practices relate mainly to the management of natural resources used in the production (internal CSR). They open a way of managing change and reconciling social development with improved competitiveness (external CSR) (European Commission, 2001).

This point clearly shows that the HR function plays a key role to promote CSR and sustainability within the companies. For instance, HR function could contribute to the promotion of pro-environmental behaviors aimed to reduce organizational environmental footprint of employees at work (Saifulina & Carballo-Penela, 2017), by designing trainings and carefully guiding employees in pro-environmental activities.

7.2.2. CSR and HR activities

As we previously mentioned, there are two dimensions of CSR: external and internal. External deals with company and environment it operates in: relation with customers, environmental impact, suppliers, etc. In turn, internal dimension is described as CSR practices which are directly related to the physical and psychological

working environment of employees (Al-bdour et al., 2010). HR function has to intervene in both dimensions in order to establish CSR in the organization and develop policies to make it real – HR professionals are the implementers of CSR activities (Mondy & Mondy, 2010) – who provide social goods on the cost of business opportunity.

One of the important parts of CSR application to business daily life is the ethical conducts to be the part of organizational culture. For instance, code of ethics developed by Society for Human Resource Management includes such practices as “professional responsibility, professional development, ethical leadership, fairness and justice, conflicts of interests, and use of information” (Mondy & Mondy, 2010, p. 34). All those listed above seem to be a guideline of ethical behaviors for the employees. Those employee ethical behaviors supporting ethical organizational culture, help to create socially responsible organization. As we see, those practices relate as well as to the external CSR, equally to the HR internal practices of fair recruitment practices and job conditions (internal CSR).

Besides, as the main work of HR professionals is dealing with people, the establishment of ethical conduct policies is a must for HR function – HR department must review, develop, and analyze ethical policies and work with employees via trainings and explanations what is ethical and what is not (Mondy & Mondy, 2010). In other words, the HR department is in charge of establishing ethical norms and ethical organizational culture as a part of CSR.

In addition, there are practices of internal CSR, which relate to the organization dealing with its employees. The practices might be, for instance, equal pay, fair pay, non-discriminative practices in hiring process and at work, (Armstrong, 2003; Mondy & Mondy, 2010) and hiring CSR specialists (Clarke, 2011) in order to develop more activities related to the concept.

In order to be able to implement the CSR principles to the organization, companies should align their HR systems (Hitchcock & Willard, 2009). The orientation could be one of CSR practices found among HR policies. Also in job descriptions, CSR practices application should be underlined – that would help to establish the socially responsible organizational culture starting from the recruitment process, employees would get used to CSR culture from the beginning (Hitchcock & Willard, 2009).

CSR practices could be taught by HR members during trainings on the topic; however, implementing such trainings to regular staff meetings may become an effective tool of promotion of such corporate culture (Hitchcock & Willard, 2009). For instance, on regular meetings of management the sustainable solutions of every day issues might be applied, underlining the fact that those solutions are supporting CSR policies of the company¹²².

¹²² For instance, Orange implemented the following 4-day training to promote CSR and explain its concepts to the employees of the company: “The 4-day program is based on the following principles: i). defining a CSR strategy tailored to the local organization and the country; ii). organizing stakeholder dialogues; iii). applying CSR to different business lines in the company; iv). assessing a project from a CSR standpoint through an operational case study. The program yields a formal certification statement which allows the CSR manager to validate and certify his/her knowledge, which further improves

In order to promote CSR practices in the organizations some companies apply reward systems – for instance, sustainability quotient of the purchases might increase 10% of the initial pay. Of course, those practices does not eliminate the practice of fair pay. However, those practices are two-sided coin – they might result in unfavorable activities due to the human psychological affection to the reward (Hitchcock & Willard, 2009).

Moreover, companies might provide programs of telecommuting or special developed transportation programs (such as selecting alternative means of transportation such as travelling by bus to work rather than using personal car) to reduce the impact on the environment and to provide motivation for the employee pro-environmental behavior at work (Hitchcock & Willard, 2009). Moreover, recycling of the used unnecessary paper, printing on the both sides, switching off the lights after leaving the office could be examples of such behavior.



future employability as a CSR professional.” («Implementation of sustainability strategy across the business | CSR Europe», n. d.).

7.3. OCBE dimensions and proposed questionnaire items

Table 7.3. OCB and OCBE dimensions with proposed questionnaire items.

Main OCB (Boiral, 2009; Organ et al., 2006) and OCBE categories (Boiral & Paillé, 2012)		Helping	Sportsmanship	Organizational loyalty	Individual initiative	Self-development
		Eco-helping	-	Eco-civic engagement	Eco-initiatives	Eco-civic engagement
Proposed questionnaire items	(Fryxell & Lo, 2003)			<ul style="list-style-type: none"> • I take measures to recycle waste in areas I'm responsible for. • I often find that I'm speaking out on behalf of environmental issues in my company. • I am often the one to bring environmental problems to the attention of top management. • I make it a practice to incorporate energy efficiency ratings of products into any purchase decisions. • I take actions where possible to reduce the amount of resources used in my company's processes. 	<ul style="list-style-type: none"> • I ensure that equipment is properly maintained and running as efficiently as possible. 	<ul style="list-style-type: none"> • When I skim the newspaper, I often read articles that appear to address the environmental impacts of my company and industry. • I make it a point to stay up-to-date about changes in environmental laws and regulations related to this business. • I put a lot of effort into being aware of the environmental aspects and impacts of my business. • Prior to making decisions with environmental implications, I prefer to obtain the opinions of environmental or community groups.
	(Boiral & Paillé, 2012)	<ul style="list-style-type: none"> • I spontaneously give my time to help my colleagues take the environment into account in everything they do at work • I encourage my colleagues to adopt more environmentally conscious behavior • I encourage my colleagues to express their ideas and opinions on environmental issues 	<ul style="list-style-type: none"> • Even when I am busy, I am willing to take time to share information on environmental issues with new 	<ul style="list-style-type: none"> • I actively participate in environmental events organized in and/or by my company • I undertake environmental actions that contribute positively to the image of my organization • I volunteer for projects, endeavors or events that address environmental issues in my organization 	<ul style="list-style-type: none"> • In my work, I weigh the consequences of my actions before doing something that could affect the environment • I voluntarily carry out environmental actions and initiatives in my daily work activities • I make suggestions to my colleagues about ways to protect the environment more effectively, even when it is not my direct responsibility 	<ul style="list-style-type: none"> • I stay informed of my company's environmental initiatives

		colleagues			
(Robertson & Barling, 2013)			<ul style="list-style-type: none"> • I make suggestions about environmentally friendly practices to managers and/or environmental committees, in an effort to increase my organization's environmental performance. 	<ul style="list-style-type: none"> • I print double sided whenever possible. • I put compostable items in the compost bin. • I put recyclable material (e.g., cans, paper, bottles, batteries) in the recycling bins. • I bring reusable eating utensils to work (e.g., travel coffee mug, water bottle, reusable containers, reusable cutlery). • I turn lights off when not in use. • I take part in environmentally friendly programs (e.g., bike/walk to work day, bring your own local lunch day). 	
(Lamm et al., 2013)				<ul style="list-style-type: none"> • I am a person who recycles my bottles, cans, and other containers. • I am a person who uses scrap paper for notes instead of fresh paper. • I am a person who prints double-sided. • I am a person who turns off my lights when leaving my office for any reason. • I am a person who recycles used paper. • I am a person who powers off my computer when away for more than 3 hours. • I am a person who turns off the lights in a vacant room. • I am a person who powers down all desk electronics at the end of the day. • I am a person who uses a reusable water bottle instead of a paper cup at the water cooler or faucet. • I am a person who uses a reusable coffee cup instead of a paper cup. • I am a person who properly disposes of electronic waste. • I am a person who makes sure all of the lights are turned off if I am the last to leave. 	
(Bissing-Olson et al., 2013)				<ul style="list-style-type: none"> • Today, I took a chance to get actively involved in environmental protection at work. • Today, I took initiative to act in environmentally-friendly ways at work. • Today, I did more for the environmental work than I was expected to. 	

(Graves et al., 2013)	<ul style="list-style-type: none"> • At work, I encourage others to think about the environment. • At work, I help others solve environmental problems. • At work, I share my knowledge about the environment with others. 		<ul style="list-style-type: none"> • At work, I offer ideas for reducing our impact on the environment. • At work, I join in environmental activities that are not required by my job. 	<ul style="list-style-type: none"> • At work, I try to learn more about the environment. • At work, I find ways of working that are better for the environment. • At work, I apply new ideas for reducing our impact on the environment. • At work, I help create green processes and products. • At work, I perform environmental tasks that are not required by my company. • At work, I question practices that are likely to hurt the environment. • At work, I recycle and reuse materials. • At work, I try to reduce my energy use. 	
(Robertson & Barling, 2017)	<ul style="list-style-type: none"> • I help my co-workers be environmentally friendly at work. • I encourage my coworkers to turn off work-related equipment when not in use. • I promote environmentally friendly behaviors amongst my coworkers. • I suggest to my coworkers that they reduce the amount of materials they use. 		<ul style="list-style-type: none"> • I encourage my organization to reduce its environmental impact. • I persuade my organization to purchase environmentally friendly products. • I encourage my organization to support an environmental charity. • I discuss with my leader how my organization can become more environmentally friendly. • I participate in environmentally friendly events that are sponsored by my organization. 	<ul style="list-style-type: none"> • At work, I compost organic material whenever possible. • At work, I recycle whenever possible. • I conserve the amount of materials I use at work. • At work, I reduce the amount of energy I use. 	
Current research	<ul style="list-style-type: none"> • I encourage my colleagues to express their ideas and opinions on environmental issues. • I give my time to help my colleagues take the environment into account at work. • I speak to my colleagues to help them better understand the environmental problems. 		<ul style="list-style-type: none"> • I take initiative to contribute to pro-environmental behavior of my company (trainings, conferences, debates, meetings, etc.). • I suggest new practices that could improve the environmental performance of my organization. • I volunteer for projects or events that address environmental issues in my organization. 	<ul style="list-style-type: none"> • I try to use electronic materials rather than print them out. • When going to work I use environmentally friendly transport options (e.g., taking public transportation, rather than using a car). • I give suggestions to managers for improving pro-environmental behavior at my work. • When talking to my customers about investment decisions, I try to take firms that care about environmental and social issues (e.g., prevention of environmental damage, care about quality of life of their employees and community) and raise awareness of clients on that issue. 	

Source: author's own elaboration.

7.4. Classification of the studied determinants of PEB at work

The extended version of the Table 4.1 presented in Chapter 4 can be found in this section, presenting antecedents of pro-environmental behavior at work from organizational behavior research (Table 7.4a), psychological research (Table 7.4b), OCBE research (Table 7.4c) and Green HRM research (Table 7.4d).

Proactivity research table (Table 7.4e) includes some articles where the studied variable is “proactive and creative behaviors” (Ohly, Sonnentag, & Pluntke, 2006), “employees’ proactive behaviors” (Den Hartog & Belschak, 2012), “ecoinitiative”¹²³ (Ramus & Killmer, 2007), “prosocial intentions and behavior” (De Groot & Steg, 2009), “employee environmental initiatives” (Ramus & Steger, 2000), “innovative behavior” (Scott & Bruce, 1994), to mention just a few.

OCB research table (Table 7.4f) includes some important articles in the study of the concept such as Konovsky & Organ (1996), Organ & Ryan (1995), Smith, Organ, & Near (1983).

Table 7.4. Classification of the studied determinants of PEB at work¹²⁴

Table 7.4a. Organizational Behavior Research

AUTHOR, NAME OF THE CONSTRUCT AND JOURNAL		ORGANIZATIONAL CONTEXT-INDUCED FACTORS	INDIVIDUAL FACTORS
General Organizational Research	(Bissing-Olson et al., 2013) daily task-related pro-environmental behavior, daily proactive pro-environmental behavior Journal of Organizational Behavior		employees’ daily affect (activated and inactivated), pro-environmental attitude
	(Cantor et al., 2012) employee engagement in environmental behaviors Journal of Supply Chain Management	supervisory support for environmental initiatives, environmental training provided to an employee by the organization, rewards the organization provided for environmental behaviors, employee perception of organizational support for environmental behaviors, employee affective commitment to environmental behaviors	
	(Chun, 2009) corporate citizenship Journal of Business Ethics	employee organizational commitment, company type (state-owned and private)	conservatism, self-transcendence, employee attitudes toward environment
	(Graves & Sarkis, 2018) pro-environmental behaviors (basic and advanced)	environmental leadership transformational	environmental values, internal motivation, external motivation

¹²³ This article was published before the Boiral & Paillé (2012) classification was published and ecoinitiative means environmental initiative and not the type of OCBE.

¹²⁴ We have tried to find the maximum number of articles studying employees’ voluntary PEB at work. However, in some prior literature this information of the variable was not explicitly specified. In case of OCBE and OCB research the studied behavior is voluntary.

AUTHOR, NAME OF THE CONSTRUCT AND JOURNAL	ORGANIZATIONAL CONTEXT-INDUCED FACTORS	INDIVIDUAL FACTORS
Journal of Cleaner Production		
(Klade, Mert, Seebacher, & Schultz, 2013) sustainable and pro-environmental behavior International Journal of Innovation and Sustainable Development	work-life balance	physical exercise and (mental) health, nutrition, mobility, gender, education of trainees
(Lu et al., 2017) PEB Resources, Conservation and Recycling	work unit (state-owned, private, joint venture, foreign, public institution)	demographics (marital status, residential area, age, educational level, income satisfaction)
(Melo et al., 2018) PEB Ecological Economics	work-life balance	environmental self-perception (environmental values and attitudes)
(Peng & Lee, 2019) employees' PEBs	work ethic, environmental benefit sharing	ecological embeddedness
(Rayner & Morgan, 2018) green employee behaviors at work Asia Pacific Journal of Human Resources	setting (work vs home), line managers, industry type	pro-environmental ability, motivation and opportunity of the individual, environmental knowledge
(Robertson & Barling, 2013) employees' environmental behaviors Journal of Organizational Behavior	environmentally-specific transformational leadership, leaders' environmental behaviors, leaders' environmental descriptive norms	employees' harmonious environmental passion
(Robertson & Carleton, 2018) voluntary pro-environmental behavior Journal of Leadership and Organizational Studies	environmentally specific transformational leadership, perceived pro-environmental climate of coworkers	internal environmental locus of control
(Saifulina & Carballo-Penela, 2017) workplace environmentally friendly behavior Sustainable Development	supervisors and colleagues workplace environmentally friendly behavior, perceived organizational support, supervisor's environmental transformational leadership	harmonious environmental passion
(Tudor, Barr, & Gilg, 2008) sustainable environmental behavior of employees Environment and Behavior	organizational focus, department type/size, organizational structure, organizational/site type and size, organizational culture	beliefs, attitudes, sociodemographics, motivation, awareness

Source: author's own elaboration.

Table 7.4b. Psychological Research¹²⁵

AUTHOR, NAME OF THE CONSTRUCT AND JOURNAL		ORGANIZATIONAL CONTEXT-INDUCED FACTORS	INDIVIDUAL FACTORS
Psychological Research	(Bamberg & Möser, 2007) environmental behavior Journal of Environmental Psychology		problem awareness, internal attribution, social norm, feeling of guilt, perceived behavioral control, attitude, moral norm, intention
	(Biel & Thøgersen, 2007) behavior (environmental behavior) Journal of Economic Psychology		social norms
	(Carrico & Riemer, 2011) environmental behavior (energy conservation) Journal of Environmental Psychology	information campaign, feedback, peer education, electricity consumption in kilowatt hours, monthly temperature (weather), campaign exposure, collective outcome expectancy	descriptive norms, injunctive norms, goal attractiveness
	(Fujii, 2006) behavioral intention of electricity use reduction, behavioral intention of gas use reduction, behavioral intention of garbage reduction, behavioral intention of automobile use reduction Journal of Environmental Psychology		environmental concern, attitude toward frugality, perceived ease of behavior
	(Gifford & Nilsson, 2014) pro-environmental behavior International Journal of Psychology		personal factors (childhood experience, knowledge and education, personality and self-construal, sense of control, values, political and world views, goals, felt responsibility, cognitive biases, place attachment, age, gender, chosen activities), social factors (religion, urban-rural differences, norms, social class, proximity to problematic environmental sites, cultural and ethnic variations)
	(Homburg & Stolberg, 2006) pro-environmental behavior Journal of Environmental Psychology		demand appraisal (threat/harm), resource appraisal (efficacy), problem-focused coping (problem solving, expression of emotions, self-protection)

¹²⁵ There is lack of studies on individual factors predicting pro-environmental behaviors studied in a work setting. However, even if the setting of the research is not explicitly specified, we include some articles on the topic of pro-environmental behavior and its determinants in the current table for better understanding of antecedents of PEB.

AUTHOR, NAME OF THE CONSTRUCT AND JOURNAL	ORGANIZATIONAL CONTEXT-INDUCED FACTORS	INDIVIDUAL FACTORS
(Kaiser et al., 1999) ecological behavior intention Journal of Environmental Psychology		environmental knowledge, environmental values
(Karp, 1996) pro-environmental behavior Environment and Behavior		values
(Kim, Kim, Han, & Holland, 2016) pro-environmental behavior International Journal of Hospitality Management	external motivation	autonomous motivation, environmental concern, self-efficacy
(Klößner, 2013) environmental behavior Global Environmental Change		awareness of consequences, ascription of responsibility, attitudes, habit, intention, new environmental paradigm, perceived behavioral control, personal norm, social norm, self-transcendence values, self-enhancement values
(Lülfes & Hahn, 2013) voluntary pro-environmental behavior of employees (theoretical model only) European Management Review	organizational context (existence of environmental management system, presence of code of conduct or guidelines, realization of environmental training), perceived behavioral control (perceived corporate environmental performance, perceived supervisory support)	awareness of need, awareness of consequences, social norm, personal moral norm, attitude towards voluntary pro-environmental behavior of employees, intention to perform voluntary pro-environmental behavior of employees, habit
(Nordlund & Garvill, 2002) pro-environmental behavior Environment and Behavior		self-transcendence, self-enhancement, ecocentrism, anthropocentrism, problem awareness, personal norm
(Norton et al., 2014) employee green behavior (task-related and proactive) Journal of Environmental Psychology	perceived sustainability policy, green work climate perceptions of the organization, green work climate perceptions of co-workers	environmental attitude
(Paillé & Mejía-Morelos, 2014) pro-environmental behavior at work Journal of Environmental Psychology	perceived organizational support, job attitudes (employee commitment to organization and job satisfaction)	perceived psychological contract breach
(Pavalache-Ilie & Cazan, 2018) pro-environmental attitudes and behavior		HEXACO personality traits (honesty, emotionality, extraversion,

AUTHOR, NAME OF THE CONSTRUCT AND JOURNAL		ORGANIZATIONAL CONTEXT-INDUCED FACTORS	INDIVIDUAL FACTORS
	International Journal of Environmental Health Research		agreeableness, conscientiousness, openness), proactivity, limits, antiantropocentrism, fragility of balance, rejection of exempt, ecocrisis
	(Ruepert, Keizer, & Steg, 2017) pro-environmental behavior Journal of Environmental Psychology		biospheric values and belief in organizational ambition to realize corporate environmental responsibility
	(Scherbaum, Popovich, & Finlinson, 2008) employee energy-conservation behaviors and behavioral intentions Journal of Applied Social Psychology		environmental worldview, environmental personal norms
	(Whitmarsh et al., 2018) recycling behaviors across contexts Frontiers in Psychology	context (work, home, holiday)	attitudes, social norms, perceived behavioral control, identity, habits, personal norms, and contextual variables (recycling information, location of bins)
	(Wiernik et al., 2016) employee green behavior Frontiers in Psychology		age

Source: author's own elaboration.

Table 7.4c. OCBE Research

AUTHOR, NAME OF THE CONSTRUCT AND JOURNAL		ORGANIZATIONAL CONTEXT-INDUCED FACTORS	INDIVIDUAL FACTORS
OCBE Research	(Boiral et al., 2018) OCBE Journal of Business Ethics		personal environmental beliefs, stages of consciousness
	(Boiral et al., 2015) OCBE Business Strategy and the Environment	managers' OCBEs, environmental management practices	environmental values, perceived behavioral control
	(Daily et al., 2009) OCBE and environmental performance Business & Society	supervisory support for environmental efforts, perceived corporate social performance, organizational commitment	environmental concern
	(Han, Wang, & Yan, 2019) OCBE Sustainability (Switzerland)	responsible leadership	autonomous and external environmental motivation
	(Luu, 2017) OCBE International Journal of Contemporary Hospitality Management	CSR, corporate entrepreneurship	employees' attachment anxiety, employees' attachment avoidance

AUTHOR, NAME OF THE CONSTRUCT AND JOURNAL	ORGANIZATIONAL CONTEXT-INDUCED FACTORS	INDIVIDUAL FACTORS
(Luu, 2019a) OCBE International Journal of Contemporary Hospitality Management	environmentally specific servant leadership, perceived organizational support for green behaviors	pro-environmental person-group fit, employee environmental engagement
(Luu, 2019b) OCBE Journal of Hospitality & Tourism Research	environmentally-specific charismatic leadership, organizational justice for PEBs (procedural, distributive, interactional)	employee environmental commitment
(Paillé & Boiral, 2013) OCBE Journal of Environmental Psychology	perceived organizational support, commitment to the organization, job satisfaction	
(Paillé et al., 2014) OCBE and environmental performance Journal of Business Ethics	strategic human resource management	internal environmental orientation/concern
(Paillé et al., 2016) OCBE (eco-helping) Journal of Business Ethics	perceived colleague support, commitment to colleague, job satisfaction	intention to help others
(Paillé et al., 2017) OCBE and private green behavior Journal of Business Ethics	job efficacy, supervisory support for the environment, environmental management practices, affective commitment	archetypes (citizen, enthusiast, apathetic, conformist), personal environmental beliefs
(Pham, Phan, Tučková, Vo, & Nguyen, 2018) OCBE Management & Marketing. Challenges for the Knowledge Society	green training, green organizational culture	
(Rezapouraghdam et al., 2018) OCBE Journal of Sustainable Tourism	workplace spirituality	environmental awareness, connectedness to nature
(Temminck et al., 2015) OCBE Business Strategy and the Environment	employees' perceived organizational support for environmental efforts, affective organizational commitment	employees' concern for the environment
(Tosti-Kharas et al., 2017) OCBE Organization & Environment	perceived organizational rationale for sustainability (eco-centric, organization-centric), organizational identification	personal rationale for organizational sustainability (eco-centric, organization-centric)
(Tsai, Stritch, & Christensen, 2016) eco-helping and eco-civic engagement Public Performance and Management Review	organizational commitment	individual environmental concern, public service motivation
(Wang et al., 2018) OCBE Journal of Management in Engineering	external pressures (coercive pressures, mimetic pressures, normative pressures), internal practices (organizational support)	
(Zientara & Zamojska, 2018) OCBE Journal of Sustainable Tourism	green organizational climate, affective organizational commitment	personal environmental values

Source: author's own elaboration.

Table 7.4d. Green HRM Research

AUTHOR, NAME OF THE CONSTRUCT AND JOURNAL		ORGANIZATIONAL CONTEXT-INDUCED FACTORS	INDIVIDUAL FACTORS
Green HRM Research	(Alnajdawi et al., 2017) OCBE Journal of Environmental Accounting and Management	Green HRM practices (green recruitment and selection, green training and development, green compensation and reward)	
	(Bangwal, Tiwari, & Chamola, 2017) environmental performance International Journal of Environment, Workplace and Employment	green training and development, green pay and reward, energy efficient workspace, green HRM	environmental-friendly practices in working life, environmental-friendly practices in private life
	(Dumont et al., 2017) employee workplace green behavior (in-role and extra-role) Human Resource Management	psychological green climate, green HRM	individual green values
	(Haddock-Millar et al., 2016) green behaviors The International Journal of Human Resource Management	green HRM approaches (organization strategic priorities and context, organization structure in relation to the environment and human resource management/development function, environmental and human resource management and/or development initiatives)	
	(Mukherjee & Chandra, 2018) employees' green behavior Prabandhan: Indian Journal of Management	green HRM practices and policies	
	(Pellegrini et al., 2018) employee sustainable behavior (in-role and extra-role) Business Strategy and the Environment	sustainable HR (employee perception of internal sustainability orientation, supervisory support behavior, training, rewards), affective commitment	
	(Pinzone et al., 2016) collective OCBE Journal of Cleaner Production	collective affective commitment to environmental management change, green competence building practices, green performance management practices, green employee involvement practices	
	(Saeed et al., 2019) employees' pro-environmental behaviors Corporate Social Responsibility and Environmental Management	green HRM practices (green recruitment and selection, green training and development, green performance management and appraisal, green reward and compensation, green empowerment)	pro-environmental psychological climate (capital), environmental knowledge
	(Shen et al., 2018) task performance OCBO and intention to quit Group & Organization Management	perceived green HRM, perceived organizational support, organizational identification	

Source: author's own elaboration.

Table 7.4e. Proactivity Research¹²⁶

AUTHOR, NAME OF THE CONSTRUCT AND JOURNAL		ORGANIZATIONAL CONTEXT-INDUCED FACTORS	INDIVIDUAL FACTORS
Proactivity Research	(Bateman & Crant, 1993) proactive behaviors Journal of Organizational Behavior		neuroticism, extraversion, openness, agreeableness, and conscientiousness
	(Crant, 2000) proactive behaviors* Journal of Management	organizational culture, organizational norms, situational cues, management support	proactive personality, personal initiative, role breadth self-efficacy, and taking charge
	(De Groot & Steg, 2009) prosocial intentions and behavior* The Journal of Social Psychology		personal norms, awareness of consequences, ascription of responsibility,
	(Den Hartog & Belschak, 2012) employees' proactive behaviors* Journal of Applied Psychology	transformational leadership, role breadth self-efficacy, job autonomy	
	(Fritz & Sonnentag, 2009) proactive behaviors* Journal of Management	positive mood during a specific workday, job stressors, time pressure on a specific workday, situational constraints	
	(Ohly et al., 2006) proactive and creative behaviors* Journal of Organizational Behavior	routinization, job control, job complexity, time pressure, and supervisor support	
	(Parker, 2000) proactive behaviors* Applied Psychology	job satisfaction, organizational commitment, job strain, work characteristics and individual differences, job security	role breadth self-efficacy, change receptiveness, background (age, tenure, gender, job type)
	(Parker, Williams, & Turner, 2006) proactive work behaviors and non-proactive outcome (generalized compliance)* Journal of Applied Psychology	perceived work environment (job autonomy, co-worker trust, supportive supervision), affective organizational commitment	individual differences (proactive personality), proactive cognitive-motivational states (role-breadth self-efficacy, control appraisals, change orientation, flexible role orientation)
	(Ramus & Killmer, 2007) ecoinitiative Business Strategy and the Environment	perception of organizational norms	personal predisposition, self-efficacy, perception of second-party support (behavior and resources), individual employee's motivation, intent to propose ecoinitiative
	(Ramus & Steger, 2000) employee environmental initiatives Academy of Management Journal	environmental policy, supervisory support for innovations, supervisory support for employees' competence building, supervisory support for employees' communication with others, supervisory support for information dissemination, supervisory support for employees through rewards and recognition, supervisory support for goals and responsibility management	

¹²⁶ The proactivity research table includes articles that are studying proactive green behaviors and proactive behaviors in general (marked with *). We believe that both categories are important for current research for better understanding of the mechanisms and determinants that activate proactive behaviors.

AUTHOR, NAME OF THE CONSTRUCT AND JOURNAL		ORGANIZATIONAL CONTEXT-INDUCED FACTORS	INDIVIDUAL FACTORS
	(Scott & Bruce, 1994) innovative behavior* Academy of Management Journal	leadership (leader-member exchange, leader role expectations), work group (team-member exchange), psychological climate for innovation (support for innovation, resource supply)	individual attributes (intuitive problem-solving style, systematic problem-solving style)
	(Thomas, Whitman, & Viswesvaran, 2010) employee proactivity Journal of Occupational and Organizational Psychology	job performance, work satisfaction, affective organizational commitment, social networking	conscientiousness, emotional stability, extraversion, openness, agreeableness
	(Wanberg & Kammeyer-Mueller, 2000) proactive behaviors and work outcomes of such behaviors* Journal of Applied Psychology		personality (neuroticism, extraversion, openness, agreeableness, conscientiousness), control variables (age, days employed, opportunity to interact, past transition experience, magnitude of job change, occupational category, skill level of new job)

Source: author's own elaboration.

Table 7.4f. OCB Research

AUTHOR, NAME OF THE CONSTRUCT AND JOURNAL		ORGANIZATIONAL CONTEXT-INDUCED FACTORS	INDIVIDUAL FACTORS
OCB Research	(Konovsky & Organ, 1996) OCB Journal of Organizational Behavior	perceived fairness, supervisor satisfaction	agreeableness and conscientiousness, equity sensitivity
	(Organ & Ryan, 1995) OCB Personnel Psychology	job attitudes, incentives, contractual rewards	disposition/personality, knowledge, skills, ability
	(Robinson & Morrison, 1995) OCB (civic virtue) Journal of Organizational Behavior	perceived contract violation, trust, explicitness	
	(Smith et al., 1983) OCB Journal of Applied Psychology	workplace environment, satisfaction	personality
	(Ullah Bukhari & Ali, 2009) OCB International Journal of Business and Management	organizational justice	conscientiousness, civic virtue
	(Williams & Anderson, 1991) OCB (OCBO, OCBI) Journal of Management	satisfaction, organizational commitment	

Source: author's own elaboration.

7.5. Questionnaire sample used for data collection

Dear Sir/Madam!

You are invited to participate in a research study titled “Understanding the drivers of employees’ voluntary pro-environmental behavior at work: an analysis of organizational and individual factors in the banking sector”, which is a part of PhD thesis. Your answers will be used only in academic purposes. This study is being conducted by Nailya Saifulina and his/her research committee from University of Santiago de Compostela (Spain).

We would appreciate your time to complete the following anonymous survey. It should take about ten-fifteen minutes of your time. Your responses are voluntary and will be confidential. Responses will not be identified by individual. All responses will be compiled together and analyzed as a group.

Participation in this study is voluntary.

By completing and submitting this survey, you are indicating your consent to participate in the study. Your participation is appreciated.

If you have any questions or concerns please contact:

researcher Nailya Saifulina nailya.saifulina@usc.es

PhD thesis director Prof. Dr. Adolfo Carballo Penela adolfo.carballo@usc.es

1. Please indicate your age range
 - a. 18-25
 - b. 26-35
 - c. 36-50
 - d. 50+
2. Please indicate your gender
 - a. Female
 - b. Male
3. Please indicate your education level
 - a. Bachelor’s degree
 - b. Master’s degree
 - c. Other (please indicate) _____
4. What is your job role? (e.g., manager, head of the department, etc.). If not working, just put student, please.

5. Please indicate for how long you are working for your company/studying at your university in case not working.

6. Please indicate the country you are from.

Question 7 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
Generally speaking, I am satisfied with my job							
I would recommend a job like mine to a good friend							

Question 8 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
Work should be the primary priority in a person's life							
Long hours inside the office are the way to achieve advancement							
It is best to keep family matters separate from work							
It is prohibited at work to talk about personal non-work matters							
Employees who are highly committed to their personal lives cannot be highly committed to their work							
Employees are given ample opportunity to perform both their job and their personal responsibilities well							
Offering employees flexibility in completing their work is viewed as a strategic way of doing business							

Question 9 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
My organization really cares about my well-being							
My organization cares about my opinions							
My organization is willing to help me if I need a special favor							
My organization would forgive an honest mistake on my part							

Question 10 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
I feel quite confident that my leader will always try to treat me fairly							
My manager would never try to gain an advantage by deceiving workers							
I would support my leader in almost any emergency							

Question 11 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
I would be happy to work at my organization until I retire							
Working at my organization has a great deal of personal meaning to me							
I really feel that problems faced by my organization are also my problems							
I am proud to tell others I work at my organization							

Question 12 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
My colleagues take part in environmentally friendly programs (e.g., bike/walk to work day, bring your own local lunch day)							
My colleagues make suggestions about environmentally friendly practices to managers and/or environmental							

committees, in an effort to increase my organization's environmental performance							
My colleagues try to use electronic materials rather than print them out							
My colleagues take initiative to contribute to pro-environmental behavior of our company (trainings, conferences, debates, meetings, etc.)							
My colleagues always look for the opportunities to reduce environmental impact in their work							

Question 13 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
My company is willing to assist employees in solving environmental problems							
Many top-level managers in my organization are personally and actively involved in developing environmental protection policies and monitoring their implementation							
My organization has detailed written policies concerned with protecting the environment							
My company encourages me to engage in pro-environmental behavior patterns							
I have the feeling that with my suggestion on pro-environmental behavior patterns I can make a difference in the company							

Question 14 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
Humanity is severely abusing the environment							
The balance of nature is delicate and easily upset							
The earth is like a spaceship with only limited room and resources							
Humanity is supposed to rule over the rest of nature							
Humans need not adapt to their natural environment because they can remake it to suit their needs							

Question 15 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
I wouldn't take a job with a company I knew produced hazardous consequences for the environment							
I feel a personal obligation to do whatever I can to prevent climate change							
I would be willing to pay much higher taxes in order to protect the environment							
I would be willing to pay much higher prices in order to protect the environment							

Question 16	Yes	No
Do you know any family members and/or friends who work for an environmental organization (e.g., renewable energy organization, environmental consultants, the ministry of the environment, non-governmental environmental organization, etc.)?		
Do your family members and/or friends endorse environmentally friendly programs?		
Do your co-workers practice environmentally friendly behaviors that you know about or have seen?		
Do your co-workers endorse environmentally friendly programs?		

Question 17 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
It is important to me whether a product I buy has no negative effects on the environment							
Since one person cannot have any effect upon pollution and natural resource problems, it doesn't make any difference what I do							
If all of us, individually make a contribution to environmental protection, it will have a significant effect							
Environmental issues are very important to me							

Question 18 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
I am passionate about the environment							
I enjoy engaging in environmentally friendly behaviors							
I enthusiastically discuss environmental issues with others							
I passionately encourage others to be more environmentally responsible							
I am a volunteered member of an environmental group							

Question 19 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
I recycle wastes (e.g., cans, bottles, paper, plastic)							
I save water by taking shorter showers							
I use electricity and hot water efficiently							
In my selection of transportation, I try to use trains rather than planes							
I try not to use plastic carry bags and go shopping with my own bag							
I prefer products with eco-labeled packages							
I make sure that during the winter the heating system in my room is not switched on too high							
Whenever possible, I take a shower instead of a bath in order to conserve water							

I drive whenever it suits me							
I stopped buying a product because it caused environmental problems							
I buy products made from recycled products (e.g., toiled paper, paper towels, napkins made from recycled paper)							
I have convinced members of my family or friends not to buy some products which are harmful to the environment							

Question 20 (1=strongly disagree, 7=strongly agree)	1	2	3	4	5	6	7
When talking to my customers about investment decisions, I try to take firms that care about environmental and social issues (e.g., prevention of environmental damage, care about quality of life of their employees and community) and raise awareness of clients on that issue							
When going to work I use environmentally friendly transport options (e.g., taking public transportation, rather than using a car)							
I give suggestions to managers for improving pro-environmental behavior at my work							
I try to use electronic materials rather than print them out							
I take initiative to contribute to pro-environmental behavior of my company (trainings, conferences, debates, meetings, etc.)							
I encourage my colleagues to express their ideas and opinions on environmental issues							
I give my time to help my colleagues take the environment into account at work							
I speak to my colleagues to help them better understand the environmental problems							
I volunteer for projects or events that address environmental issues in my organization							
I suggest new practices that could improve the environmental performance of my organization							

THANK YOU FOR YOUR TIME!